

**The following Shellfish Management Plan for the Town of Groton,  
Connecticut, is hereby submitted pursuant to Chapter 492 Section 26-257a of  
the Connecticut General Statutes and the Town of Groton Ordinance No. 139**

**Adopted by the Groton Town Council on February 25, 2020**

**Effective date February 25, 2020**

## **OUTLINE**

### **SECTION 1 - PURPOSE**

- (A) Shellfish Commission function and responsibility
- (B) History of shellfisheries in the Town of Groton

### **SECTION 2 - INTRODUCTION**

- (A) Description of shellfish producing areas
  - 1) Prohibited Areas
  - 2) Prohibited Areas, Groton, No Shellfish Resource
  - 3) Conditionally Restricted Areas
  - 4) Restricted Areas
  - 5) Conditionally Approved Areas
  - 6) Conditionally Approved Seasonal Areas
  - 7) Approved Areas

### **SECTION 3 – SHELLFISH OPERATIONS**

- (A) Recreational shellfishing harvesting regulations
  - 1. Hard Shell Clams, Common Surf Clams, and Soft Shell Clams
  - 2. Eastern Razor Clams
  - 3. Eastern Bay Scallops
  - 4. Eastern Oysters
  - 5. Blue Mussels
  - 6. Transplanting for Restocking Purposes
- (B) Commercial Shellfishing Operations
  - 1. Aquaculture
  - 2. Transplanting
  - 3. Relay in Closed or Open waters

### **Section 4 - Resource Assessments**

- (A) Shellfish surveys
- (B) Information

### **Section 5 - Enforcement**

- (A) Constables (Wardens)
- (B) Town Directors of Health/Sanitaricians
- (C) Connecticut Department of Energy and Environmental Protection (CT DEEP)

### **Section 6 - Aquaculture Development**

- (A) Aquaculture projects and experiments
- (B) Transplanting areas

### **Section 7 - Educational Programs**

- (A) Commission internships
- (B) Special interest lectures, field trips and seminars

## **ATTACHMENTS**

- I Maps 1-5 of the Town of Groton Shellfishing Areas
- II Map of Town of Groton Recreational Shellfish Areas
- III Map of Town of Groton Commercial and Lease Shellfish Areas
- IV Designated Shellfish Areas in the Town of Groton
- V Recreational Shellfishing Fees and Regulations
- VI Connecticut General Statutes, Chapter 492, Sec. 26-192 and 26-257A
- VII Town of Groton Ordinance No. 139, establishing Groton Shellfish Commission
- VIII Groton Shellfish Commission – Co-Management Agreement
- IX Groton Shellfish Commission – Aquaculture Authorization
- X Transplanting Authorization
- XI Harvest Authorization in Closed Waters
- XII Harvest Authorization in Certified (Open) Waters
- XIII Hard Shell Clam and Eastern Oyster Harvest Monthly Report
- XIV Eastern Oyster Spat Collection Authorization
- XV Water Sampling Plan and Procedures
- XVI GROTON SHELLFISH COMMISSION: COMMERCIAL  
AQUACULTURE AUTHORIZATION APPLICATION &  
REGULATORY PROCESS INFORMATION**

## **SECTION 1 - PURPOSE**

### **A) Shellfish Commission Function and Responsibility**

The Groton Shellfish Commission (GSC) was established by the Groton Town Council on November 20, 1978, having all the rights, powers, duties, and obligations conferred and imposed by Chapter 492 of the General Statutes of the State of Connecticut. A copy of Chapter 492, Sections 26-192 and 26-257a, as well as Groton Town Ordinance No. 139, may be found as Attachments VI and VII, respectively.

The Commission consists of five regular members and three alternate members whose terms vary from three to five years. Regular meetings of the Commission are scheduled on the 2<sup>nd</sup> Thursday of each month at 7pm in the Town of Groton Town Hall Annex. Additional meetings may be called, as deemed necessary, by a quorum of the Commissioners. All meetings shall be announced to the public beforehand per Town of Groton and State of Connecticut regulations. All meetings are open to the general public. For the transaction of any business, a quorum must exist. A quorum exists if a simple majority, three (3) or more of the five (5) Commissioners are present for the transaction of any business. At any particular meeting, the Alternate Commissioners may be appointed to fill in for absent Commissioners to produce a quorum. The Commission shall keep accurate minutes and records of its proceedings and official actions, showing the vote of each member on any question, or the absence or the failure of any such member to vote. The Commission has the authority to also convey the title "Emeritus" to a retiring member who would also retain the title of one's former office or position, e.g., "Chairman Emeritus". The designation Emeritus is a non-voting honorarium that permits the commission and the Emeritus member to continue to share the institutional knowledge acquired over an extended period of time.

The Shellfish Commission of the Town of Groton shall have charge of all the recreational and commercial shellfisheries and shellfish grounds lying within Town of Groton waters, not granted to others and not under the jurisdiction of the Director of the Connecticut Department of Agriculture/Bureau of Aquaculture (DA/BA) and laboratories, including all rivers, inland waters, and flats adjacent to all beaches and waters within the limits and tidal marine bounds of the Town of Groton. The Commission may issue authorizations for the taking of shellfish including Eastern Oysters, Hard Shell Clams, Common Surf Clams, Soft Shell Clams, Atlantic Razor Clams, Blue Mussels and Eastern Bay Scallops there from and fix the fees thereof. For the purpose of this management plan, regulated shellfish in the town of Groton shall be defined as follows: Eastern Oyster (Crassostrea virginica), Common Surf Clam (Spisula solidissima), Hard Shell Clam (Mercinaria mercinaria), Atlantic Razor Clam (Ensis directus), Soft Shell Clam (Mya arenaria), Blue Mussel (Mytilus edulis), and the Bay Scallop (Argopecten irradians). The Commission may designate the quantities of such shellfish to be taken, the sizes of such shellfish, and the methods of taking. The Commission may prohibit the taking of such shellfish from certain designated areas for periods not to exceed one year. All monies collected by the Commission under the provisions of this section shall be paid to the Commission and used by it for the protection and/or propagation of the shellfish under its control. The

Shellfish Commission works closely with the Connecticut Sea Grant Extension Program, the Connecticut Department of Agriculture/Bureau of Aquaculture and Laboratory (DA/BA), the Ledge Light Health District, Project Oceanography, and the University of Connecticut Avery Point Campus.

## **B) History of Shellfisheries**

From the middle of the nineteenth century up until the early twentieth century, Groton was noted for its shellfish production. Some commercial oystering was carried on from the 1880's to the 1920's. By the late 1940's contamination forced the closing of a number of shellfish producing areas. By the early 1970s all but two estuaries were considered unsafe for shellfishing. The Town of Groton Shellfish Management Plan of 1979 provided a vehicle by which shellfish production in Town waters was revived for both commercial and recreational users, reaching a point in the 1980's when over \$10,000 in recreational fees was generated in one year. Since the implementation in 1989 of the National Shellfish Sanitation Program Model Ordinance, the entire Groton shellfish growing area waters are monitored on a regular basis per DA/BA guidelines in order to assess water quality and potential sources of pollution. While a significant part of Groton waters are classified as "conditionally-approved", several other areas have been classified as "prohibited" or closed due to proximity to pollution sources or inactivity. See Attachments I, II, and III for maps outlining recreational shellfishing and commercial lease locations, and the harvest area classifications of Groton shellfish grounds. Recreational shellfishing has continued to draw significant numbers of individuals to the designated public areas. The recreational program has experience consistent growth over the years. In 1994, 293 shellfish permits were issued. This figure increased to over 1150 in 2017. An active restocking of Hard Shell Clams and Eastern Oysters was maintained from the 1990's through present day. The Commission has also entertained and supported a number of commercial shellfish applications. In 2018, total Town of Groton waters leased for commercial aquaculture operations was 431.72 acres.

## **SECTION 2 – INTRODUCTION**

### **A) Description of Shellfish Producing Areas**

The area under the jurisdiction of the Groton Shellfish Commission extends from the Thames River on the west bordering on the City of New London, north to the Ledyard line, and to the Mystic River on the east bordering on the Town of Stonington. The southern boundary is bounded by Connecticut state waters. See maps 1 – 5 in Attachment I.

#### **1) PROHIBITED AREAS**

**All waters located within the marina proper or mooring fields of marinas operated on a year-round shall be classified as Prohibited, including but not limited to the following classified areas:**

1. Thames River/New London Harbor, New London, Groton: That area of the Thames River and its tributaries enclosed on the south by a line commencing at the Avery Point lighthouse at the southern extremity of Avery Point, Groton, southwesterly to the New London/Groton town shellfish line on a bearing towards the southeastern-most point of land at Ocean Beach, Waterford.
2. New London Disposal Site, New London, Groton: That area of the New London Disposal site in New London Harbor in New London and Groton located 2 miles south of Eastern Point in Groton.
3. Baker Cove, Groton: That area of Baker Cove and its tributaries north of the Amtrak Railroad bridge, south to Sawyer's Lobster pound thence east to the point of land at the airport, north.
4. Mystic River/Murphy Point, Groton, Stonington: That area of the Mystic River and its tributaries in Groton and Stonington north of a line commencing from Spence Point, Groton to Pine Point, Stonington and west of a line commencing from the southernmost point of land on Murphy Point.
5. Noank Shipyard, Groton: That area of the Lower Mystic Harbor including the marina proper of the Noank Shipyard and adjacent channel.

2) **PROHIBITED AREAS, GROTON - NO SHELLFISH RESOURCE**

The following areas have no shellfish resources and shall be classified as Prohibited:

1. Poquonnock River, Groton: That area of the Poquonnock River enclosed on the south by the former New Haven Railroad causeway, inclusive of all waters north.
2. Fort Hill Brook/Mumford Cove, Groton: That area of Fort Hill Brook and its tributaries north of the Amtrak Railroad bridge.
3. Upper Mumford Cove, Groton: That area of Mumford Cove bounded on the south by a line commencing at the shellfish demarcation sign on the southwestern extremity of land located 2,400 feet south of the Amtrak Railroad bridge, thence west to the shellfish demarcation sign on the western shore of Mumford Cove and bounded on the north by the Amtrak Railroad bridge.
4. Venetian Harbor, Groton: That area of Venetian Harbor and its tributaries northeast of a line commencing at the southwest extremity of the breakwater on the western shore of the mouth of Venetian Harbor at the flashing green navigational light 1", southeasterly 800 feet to the southernmost extremity of land.
5. Eccleston Brook, Groton: Eccleston Brook and its tributaries north of Brook Street.
6. Beebe Pond, Groton: Beebe Pond and its tributaries north of Rte. 215.

3) **CONDITIONALLY RESTRICTED AREAS**

**All waters located within the marina proper or mooring fields of marinas operated on a seasonal basis shall be classified as Conditionally Restricted. These conditional areas shall be Restricted and “closed” to DA/BA licensed relay/transplant operations for the harvesting of shellfish from April 1- October 31, when these marinas are open for the season, including but not limited to the following classified areas:**

1. Pine Island Anchorage Area, Groton: All tidal waters in Pine Island Bay enclosed by a line commencing from the southern extremity of land at Jupiter Point south to the northwestern extremity of Bushy Point, thence southwesterly to the eastern extremity of Pine Island, thence west along the northern shoreline of Pine Island to its western extremity, thence north to the abandoned lighthouse on Avery Point, exclusive of the marina proper Prohibited area of Spicer’s Marina and the UConn/ Project Oceanology docks.
2. Area F/West Cove, Groton: All tidal waters and tributaries in West Cove north of a line commencing from the southern extremity of the point of land at Esker Point southeasterly to the southern extremity of Mouse Island, thence northeast to the private wooden dock on the southwestern extremity of land at Morgan Point, exclusive of the marina proper Prohibited area of Spicer’s Marina.
3. Beebe Cove, Groton: That area of Beebe Cove in Groton located south of a line commencing from the point of land at the end of Brook Street to the Amtrak Railroad Bridge channel.

4) **RESTRICTED AREAS**

1. Groton Restricted, Groton: That area of the Groton waters commencing at the southern extremity of land at the Avery Point Light, Groton, thence southeast to the western extremity of Pine Island, Groton, continuing along the south shore of Pine Island, thence east to the western extremity of land at Bushy Point Beach, thence south to buoy RN “28” at Vixen Ledge, thence south toward the navigational lighthouse at Race Rock off Fisher’s Island, New York to the New York-Connecticut mid-Long Island Sound state boundary line, thence southwesterly along that New York-Connecticut state boundary line to the New London-Groton town boundary line, thence north along that New London-Groton town shellfish jurisdiction line to the Prohibited line just North of the G3 buoy, thence northeast to Avery Point, Groton, exclusive of Prohibited and Conditionally Restricted areas.
2. Baker Cove Restricted, Groton: That area of Baker Cove enclosed on the west by a line drawn from Jupiter Point south to the closest point of the island located between Pine Island and Bushy Point beach, exclusive of Prohibited waters.
3. Palmer Cove, Groton: The tidal waters and flats of Palmer Cove enclosed on the south by the Groton Long Point Road bridge and on the north by the Brook Street road bridge, exclusive of Conditionally Restricted areas.
4. Beebe Cove, Groton: The tidal waters and flats of Beebe Cove north of the Amtrak Railroad bridge, exclusive of Conditionally Restricted area.
5. Mystic Harbor Restricted Area, Groton/Stonington: That area of Mystic Harbor north of a line commencing from the easternmost point of land on Six Penny Island, Groton, east to Clam Point in Stonington, exclusive of Prohibited and Conditionally Restricted areas.

**5) CONDITIONALLY APPROVED AREAS: THE FOLLOWING AREAS WILL BE CONDITIONALLY OPENED OR CLOSED FOR THE TAKING OF SHELLFISH CONTINGENT UPON THE OCCURRENCE OF SPECIFIED EVENTS:**

AREA P (Poquonnock River), Groton: That area of the Poquonnock River and its tributaries enclosed on the south by a line commencing from the northwestern extremity of land at Bushy Point Beach north to the southern extremity of land at the Groton-New London Airport at the mouth of the Poquonnock River and enclosed on the north by the former New Haven Railroad causeway between the Groton-New London Airport and Bluff Point State Park.

AREA A (Vixen Ledge/Horseshoe Reef), Groton: That area of Groton waters between Vixen Ledge and Groton Long Point enclosed by a line commencing from the Area A-Area C shellfish demarcation sign located at the southern extremity of land in Mumford Cove that is located 2,000 feet northeast of Mumford Point, southeasterly to the flashing green navigational light "1" at the mouth of Venetian Harbor, thence continuing southeasterly 800 feet to the shellfish demarcation sign at the southern extremity of land near the mouth of Venetian Harbor, thence southeast to navigational buoy RN "24", thence continuing south-southeast toward navigational buoy N "2" off Flat Hammock Island in New York to the intersection of the New York-Connecticut mid-sound State boundary line, thence southwesterly along that New York-Connecticut State boundary line to its intersection with a line running in a north-south direction between the navigational buoy R "28" at Vixen Ledge and the navigational lighthouse at Race Rock located off Fisher's Island in New York, thence north along that intersecting line to navigational buoy R "28" at Vixen Ledge, thence north to the western extremity of land at Bushy Point Beach in Groton.

AREA D (Groton Long Point-West), Groton: That area of Groton off the western shore of Groton Long Point enclosed by a line commencing at the southern extremity of Groton Long Point, south to navigational buoy RG "IR" at Intrepid Rock, thence continuing south to the New York-Connecticut mid-Long Island Sound State boundary line, thence southwesterly along that New York-Connecticut mid-Long Island Sound State boundary line to its intersection with a line running in a southeasterly-northwesterly direction between navigational buoy N "2" off Flat Hammock Island, New York and navigational buoy RN "24" off Groton Long Point in Connecticut, thence northwesterly along that intersecting line to buoy RN "24", thence northwesterly to the shellfish demarcation sign located at the southern extremity of land 800 feet east of the flashing green navigational light "1" at the mouth of Venetian Harbor.

AREA E (Outer Palmer Cove) Groton: All tidal waters of Outer Palmer Cove enclosed by a line commencing from the southern extremity of Groton Long Point, northeast to the southern extremity of Mouse Island, thence northwest to the southern extremity of Esker Point, thence north along the western shore of Esker Point to the Groton Long Point Road bridge, thence west along the south side of the Groton Long Point Road bridge to the western shore of Palmer Cove.



**6) CONDITIONALLY APPROVED SEASONAL AREAS:**

AREA C (Mumford Cove), Groton: That area of Mumford Cove enclosed by a line commencing at the Area "A" - Area "C" shellfish demarcation sign located at the southern extremity of land in Mumford Cove that is located 2,000 feet northeast of Mumford Point, east to the flashing green navigational light "1" at the mouth of Venetian Harbor, thence northeasterly to the southern extremity of land at the Mumford Cove Association, located at the intersection of Neptune Drive and Anchorage Circle, thence northerly along the eastern shore of Mumford Cove to the shellfish demarcation sign located at the southwestern extremity of land that is located 2,400 feet south of the Amtrak (P & W) Railroad bridge, thence west to the shellfish demarcation sign located on the western shore of Mumford Cove. This area is closed seasonally from May 1-October 31.

Lower Mystic Harbor, Groton/Stonington: The Lower Mystic Harbor Conditionally Approved Seasonal Area is bounded on the north by a line commencing at the easternmost point of land on Six Penny Island, Groton, thence easterly to Clam Point, Stonington, thence along the western shore of Mason Island, Stonington to the point of land due southeast of Seal Rocks, thence southwest to Morgan Point, Groton, thence northerly along the Noank, Groton shoreline of Mystic Harbor, thence northeasterly to the easternmost point of land on Six Penny Island, Groton, and exclusive of the Noank Shipyard Marina Prohibited area.

- 7) APPROVED AREAS:** That area of Groton waters, exclusive of Prohibited, Conditionally Restricted, Restricted, Conditionally Approved and Conditionally Approved Seasonal shellfishing areas.

### **SECTION 3 – SHELLFISH OPERATIONS**

#### **A) Recreational Shellfishing Harvesting Regulations**

The Groton Shellfish Commission (GSC) has jurisdiction to develop and promote both recreational shellfishing and commercial shellfish operations.. This includes the taking of Hard Shell Clams, Common Surf Clams, Atlantic Razor Clams, Soft Shell Clams, Blue Mussels, Eastern Bay Scallops and Eastern Oysters. Recreational shellfishing and oystering is permitted in approved and conditionally approved (open) areas with some seasonal restrictions. Scallop harvesting, however, is permitted only during special seasons in only waters designated by the GSC.

Fees and quotas will be set by the Commission and are posted where permits are sold. See Attachments IV and V that represents a handout describing regulations and fees for recreational shellfishing. The hand-outs are available at all places where permits are sold.

1. Harvesting regulations – **Hard Shell Clams, Common Surf Clams, and Soft Shell Clams:** Size shall be at least two inches at the longest length. No rakes, tongs, or other devices with spaces or openings between the teeth or prongs of less than one inch shall be used for the taking of any species of clams in any waters under the Town of Groton's jurisdiction. No shovels or spades shall be used for digging any species of clams. No person shall use

any rake, dredge, drag or other device which may be drawn along the surface of the bottom, except a device such as a scoop which is attached to pole. Dragging or dredges are not permitted. No skin diving or scuba diving is permitted in any river or estuary for harvesting clams without prior written permission of the Commission. No harvesting of any species of clams shall be allowed between sunset and sunrise. Any undersized specimens shall, with or without damage, immediately be returned to water with a depth of at least 18 inches at low tide.

2. Harvesting Regulations – **Easter Razor Clams:** Size shall be at least four (4) inches at the longest length. No rakes, tongs, or other devices with spaces or openings between the teeth or prongs of less than one inch shall be used for the taking of any species of clams in any waters under the Town of Groton's jurisdiction. No shovels or spades shall be used for digging any species of clams. No person shall use any rake, dredge, drag or other device which may be drawn along the surface of the bottom, except a device such as a scoop which is attached to pole. Dragging or dredges are not permitted. No skin diving or scuba diving is permitted in any river or estuary for harvesting clams without prior written permission of the Commission. No harvesting of any species of clams shall be allowed between sunset and sunrise. Any undersized specimens shall, with or without damage, immediately be returned to water with a depth of at least 18 inches at low tide.
3. Harvesting regulations – **Eastern Bay Scallops:** The scallop season is established by the Shellfish Commission and depends on the availability and abundance of scallops as determined by a survey conducted by the GSC. Scallops shall be of sufficient size so as not to pass through a two-inch ring measure and must be an adult with a clearly defined growth ring. Scallop must be done wading from shore or from a boat using a sighting device or using a dip net with an opening not to exceed eight inches in diameter. No dredging, skin diving or scuba diving is permitted in a taking of scallops.
4. Harvesting regulations - **Eastern Oysters:** The Eastern Oyster season is open annually from September 1<sup>st</sup> through April 30th. Thirty (30) oysters per day may be taken from approved waters. Legal oysters measure 3 inches minimum length. No harvesting of Eastern Oysters is allowed between sunset and sunrise. Any undersized specimens shall, with or without damage, immediately be returned to water with a depth of at least 18 inches at low tide.
5. Harvesting Regulations - **Blue Mussels:** Size shall be at least two inches at the longest length. No harvesting of Blue Mussels shall be allowed between sunset and sunrise. Any undersized specimens shall, with or without damage, immediately be returned to water with a depth of at least 18 inches at low tide.
6. Transplanting for restocking purposes - The GSC sponsors an active

restocking program in order to maintain an adequate population of shellfish for recreational needs. Funds received from recreational shellfishing permit fees and commercial leases are used to obtain Hard Shell Clams and Eastern Oysters, as needed and available, which are transplanted to recreational beds. Hard Shell Clams and Oysters obtained by the GSC are augmented by a negotiated percentage of Hard Shell Clams or Eastern Oysters taken in commercial operations authorized by the GSC.. Since 1994, an estimated 30,000 pounds of hard shell clams or oysters have been stocked in areas available to recreational use.

## **B) Commercial Shellfishing Operations**

The Commission recognizes the value of commercial shellfish operation in Town of Groton waters and actively works to promote and enhance those commercial shellfish operations. Applicants are urged to meet with the GSC at regular GSC meetings conducted on the second Thursday of the month at 7pm in the Town of Groton Town Hall annex. Before submitting a request to the GSC for aquaculture authorization, the applicants should initially thoroughly review the guidance provided in **APPENDIX XVI - GROTON SHELLFISH COMMISSION: COMMERCIAL AQUACULTURE AUTHORIZATION APPLICATION & REGULATORY PROCESS INFORMATION.**

**Commercial Shellfish Operations are three basic types: aquaculture in open waters, transplanting, and harvesting from open or closed waters.**

1. **AQUACULTURE:** Aquaculture refers to the authorization of any area for the propagation of shellfish. This includes seeding, cultivation, and eventually harvesting of the shellfish, usually involving a significant investment in labor and materials. Authorizations are usually granted for a year with options extending up to five years. Aquaculture operations should not interfere with existing patterns of recreational shellfishing except in cases and areas where commercial operations are grandfathered. This generally restricts the applicant to grounds inaccessible to recreational shellfishing, e.g. in waters greater than 10' at MLT (Mean Low Tide), or areas not open to recreational shellfishing. A public hearing is required before an authorization agreement can be finalized. In order to facilitate the above restrictions, geographical zones have been set out by the Commission for aquaculture, see Appendix III. An application for aquaculture is included as Attachment XVI.

2. **TRANSPLANTING:** Transplanting refers to the placing of shellfish in clean "open" waters for a specific time period to effectively purge out contaminants or to establish new shellfish growing areas. The transplanting procedure is controlled by the Connecticut Department of Agriculture/Bureau of Aquaculture which specifies conditions and quality control procedures required. Transplanting areas are in certified areas. Having obtained a GSC authorization and DA/BA transplant permit, the applicant may remove shellfish from the bottom of a closed area,

either his/her own authorized area or a granted ground in closed areas. These shellfish are then moved to clean or open grounds (as certified by DA/BA) for the periods regulated by DA/BA. These clean areas are known as "depuration grounds" and are authorized by the Commission in open water. The Commission may at any time request to board the vessels of authorization holders and/or examine relevant records. An application for a transplanting authorization is included as Attachment XVI.

**3. HARVESTING IN CLOSED AND OPENED WATERS:** Commercial harvesting of shellfish in areas not open for recreational use is often possible. These waters are not readily available to recreational use, e.g., away from shore and in greater than 10ft. of water at MLT (Mean Low Tide).

**a) Harvesting From "Closed" Waters**

Under authorization with the GSC, it may be possible to harvest shellfish from "closed" waters. Shellfish taken must subsequently be depurated in Groton certified "clean" waters. The depuration procedure is controlled by the CT DA/BA. The applicant is charged a negotiated percent of the shellfish harvested and/or a fee per bushel harvested. The negotiated percent of the shellfish (after depuration) is then returned to open waters readily accessible to recreational shellfishing. An application for authorization to harvest from "closed" waters is included as Attachment XVI.

**b) Harvesting From Certified "Open" Waters**

The amount of certified waters, not readily accessible to recreational shellfishing is limited in Groton. These waters are primarily reserved to furnish an ongoing supply of shellfish for recreational use. Under controlled conditions, the GSC may allow harvesting of shellfish from certified "open" waters by commercial interests. Fee for the operation will be a percent of the shellfish harvested and/or a fee per bushel harvested. Such an authorization would restrict the number of bushels taken as a function of the total amount available in the permit area as well as the time of harvesting. The overall objective is to not completely deplete shellfish from the area but to maintain a "controlled" harvest. The GSC realizes that mechanically working the shellfish beds and thinning out some of the stock is conducive to healthy growth of shellfish. In this way both the interests of the recreational shell-fisher and commercial operator are served. An application for authorization to harvest from "closed" waters is included as Attachment XVI.

In addition to the above licensing options, the Commission may set aside areas to use in its own aquaculture programs. The period of such closure is up to one year (reference State of Connecticut Shellfish Laws, Section 26-257b). These waters may be within any of the waters controlled by the Town and such restriction requires only the vote of the Commission at one of its public meetings.

## **Section 4 – Resource Assessment**

### **A) Shellfish Surveys**

With the aid of the Connecticut Sea Grant Extension Program, the Connecticut Department of Agriculture/Bureau of Aquaculture and Laboratory (DA/BA), the Ledge Light Health District, Project Oceanography, and the University of Connecticut Avery Point Campus.

periodic research, water quality monitoring, and surveying is ongoing in the following areas:

- Thames River
- Bakers Cove
- Poquonnock River
- Mumford Cove
- Palmer's Cove
- Beebe Cove
- Sixpenny Island, Mystic River
- Spence Point, Mystic River
- Clam Point, Mystic River
- Upper Mystic River

Commercial harvesters and warden monthly reports also provide information.

**B)** Technical information is available from Sea Grant Extension Program and DA/BA

## **Section 5 - Enforcement**

State Statutes 26-192a-i (Attachment VI) call for the unauthorized taking of shellfish in closed or contaminated areas to be enforced by the local Director of Health with assistance of local police departments and state wildlife officers. To assist in preventing the taking of shellfish in closed areas and in the enforcement of the GSC rules and regulations, the GSC maintains from 2 to 3 Shellfish Wardens.

### **A) Shellfish Wardens (Constables for shellfish protection)**

Shellfish Wardens upon recommendation of the GSC are appointed by the Groton Town Manager, with the consent of the Groton Chief of Police. Wardens are obligated to wear a uniform on duty and receive remuneration for their services as determined by the GSC. In the discharge of their duties, Shellfish Wardens may require additional assistance. The procedure calls for contacting the Groton Town Police Department and/or the Old Lyme DEEP Office requesting town police or wildlife officer assistance as dictated by the situation encountered by the Shellfish Wardens.

**B) Town Directors of Health/Sanitation**

In an effort to safeguard the health of the public, the Commission maintains close contact with the Ledge Light Health District and assists in the monitoring of water quality and investigations of possible site-specific pollution sources.

**C) Connecticut Department of Energy and Environmental Protection (CT DEEP)**

For more effective enforcement, the Commission also works closely with the CT DEEP. Occasionally a CT DEEP Officer may accompany a Shellfish Warden on his regular patrol and as stated previously would assist a Shellfish Warden in addressing shellfish violations.

**Section 6 - Aquaculture Development**

**A) Aquaculture Projects and Experiments**

In addition to the aforementioned surveys, the Commission has undertaken a number of other projects designed to increase the availability of healthy, mature shellfish to the general public, e.g. seeding oysters, surveys of viable lease areas, and coordination with local sewage treatment plants concerning water quality.

**B) Transplanting Areas**

The Commission may set aside areas under its jurisdiction for natural purification of clams for eventual recreational harvest.

**Section 7 - Educational Programs**

**A) Commission Internships**

The Commission welcomes the interest generated among elementary school, high school, tribal youth groups, and college students by such programs as Project Oceanology and invites interested students to take part in the various aquaculture projects when possible and with the authorization of the Commission.

**B) Special Interest Lectures, Field Trips, and Seminars**

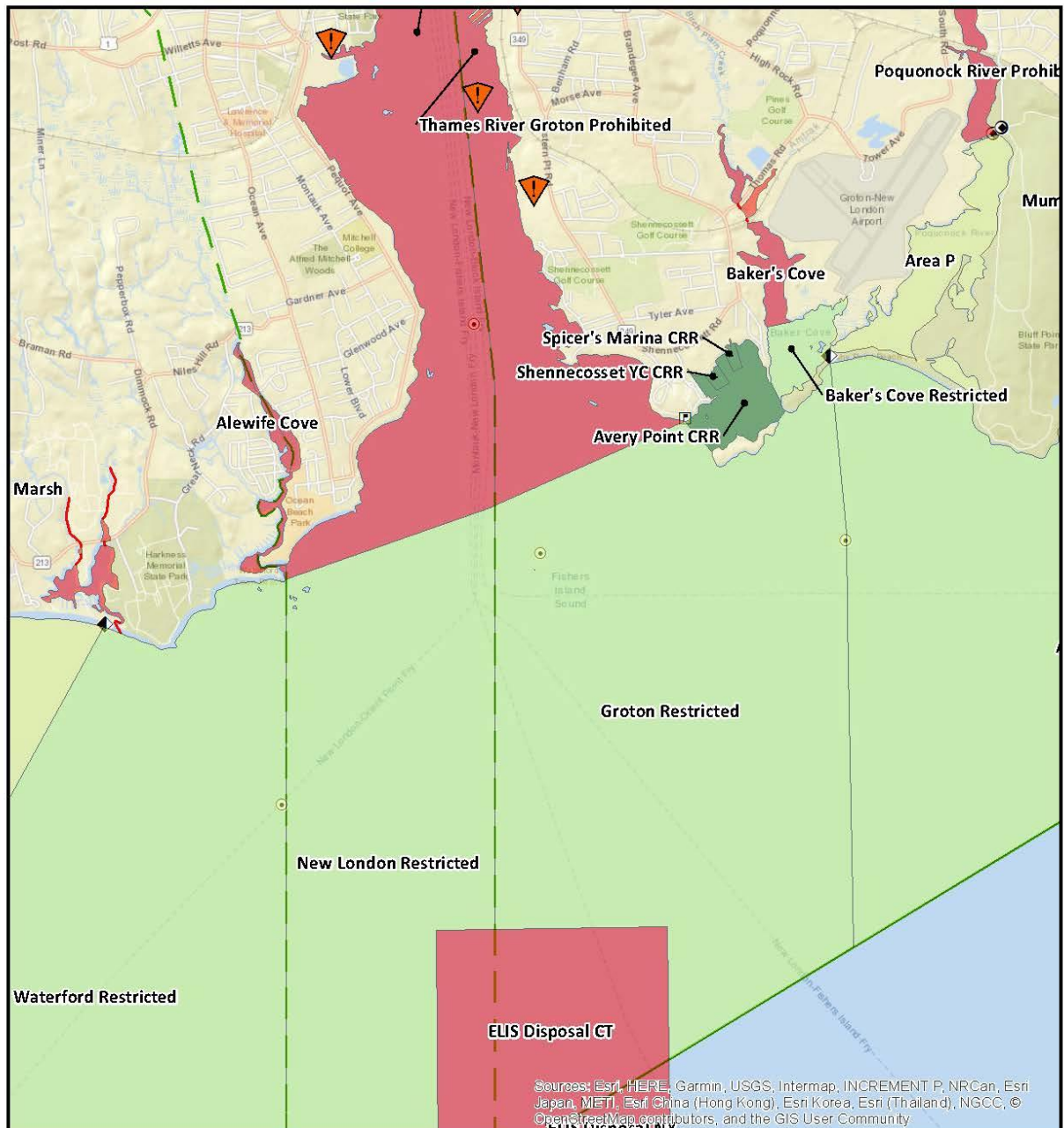
Members of the Commission recognize and appreciate the indispensable expertise of Sea Grant Extension program, DA/BA, and Project Oceanology. Each of them has been of immeasurable use providing essential information, working with the Commission members in the field, volunteering time, and offering helpful expert advice on various technical matters.

The Commission encourages attendance at seminars sponsored at the University of Connecticut, Avery Point and has participated in yearly Aquaculture Seminars sponsored by the National Marine Fisheries Service, DA/BA Milford Laboratory

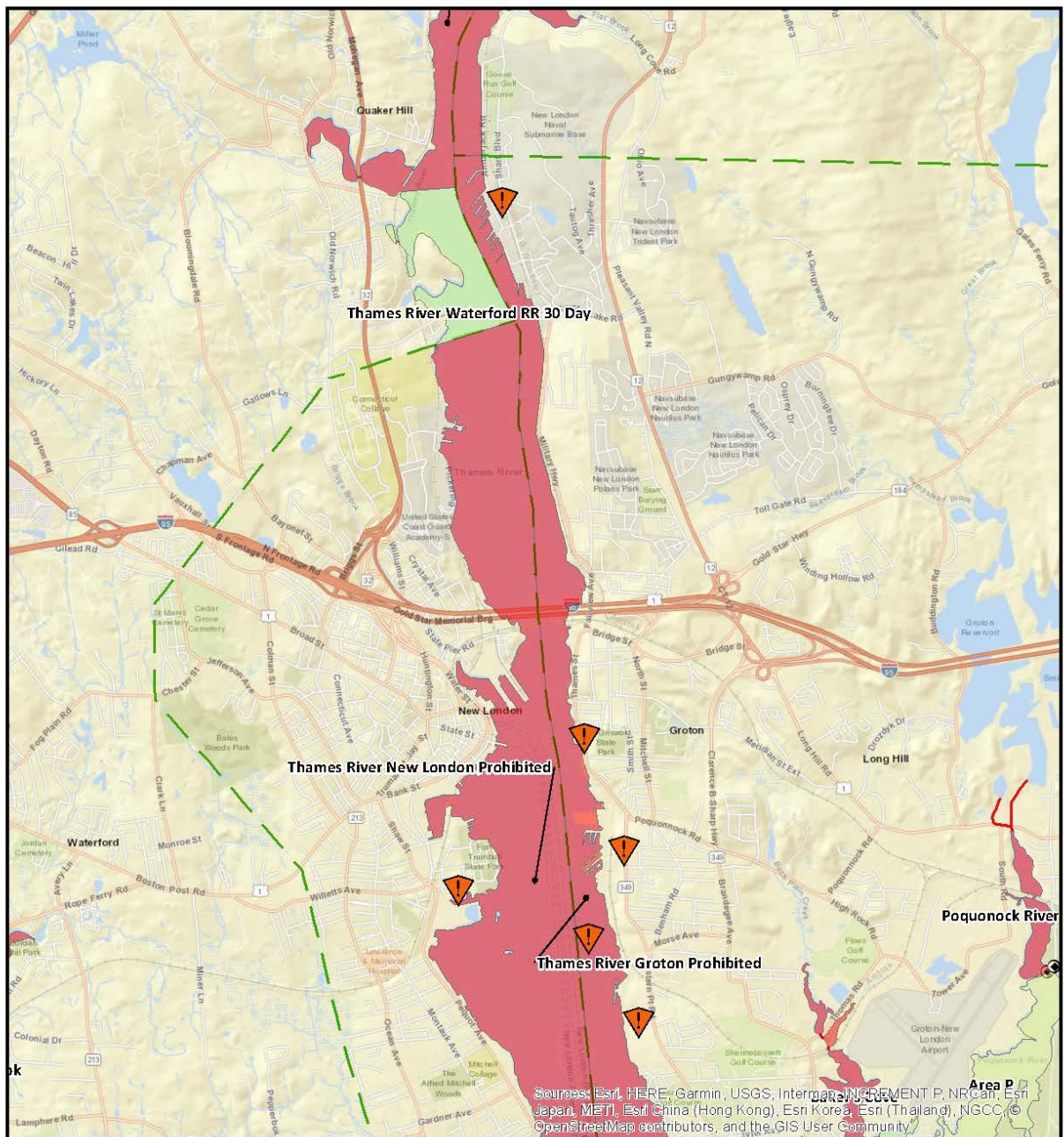
as well as similar seminars sponsored by the Northeast Shellfish Sanitation Association. The Commission encourages cooperation among local shellfish Commissions and attends the annual Statewide Shellfish Workshop hosted by Connecticut Sea Grant Extension Service.

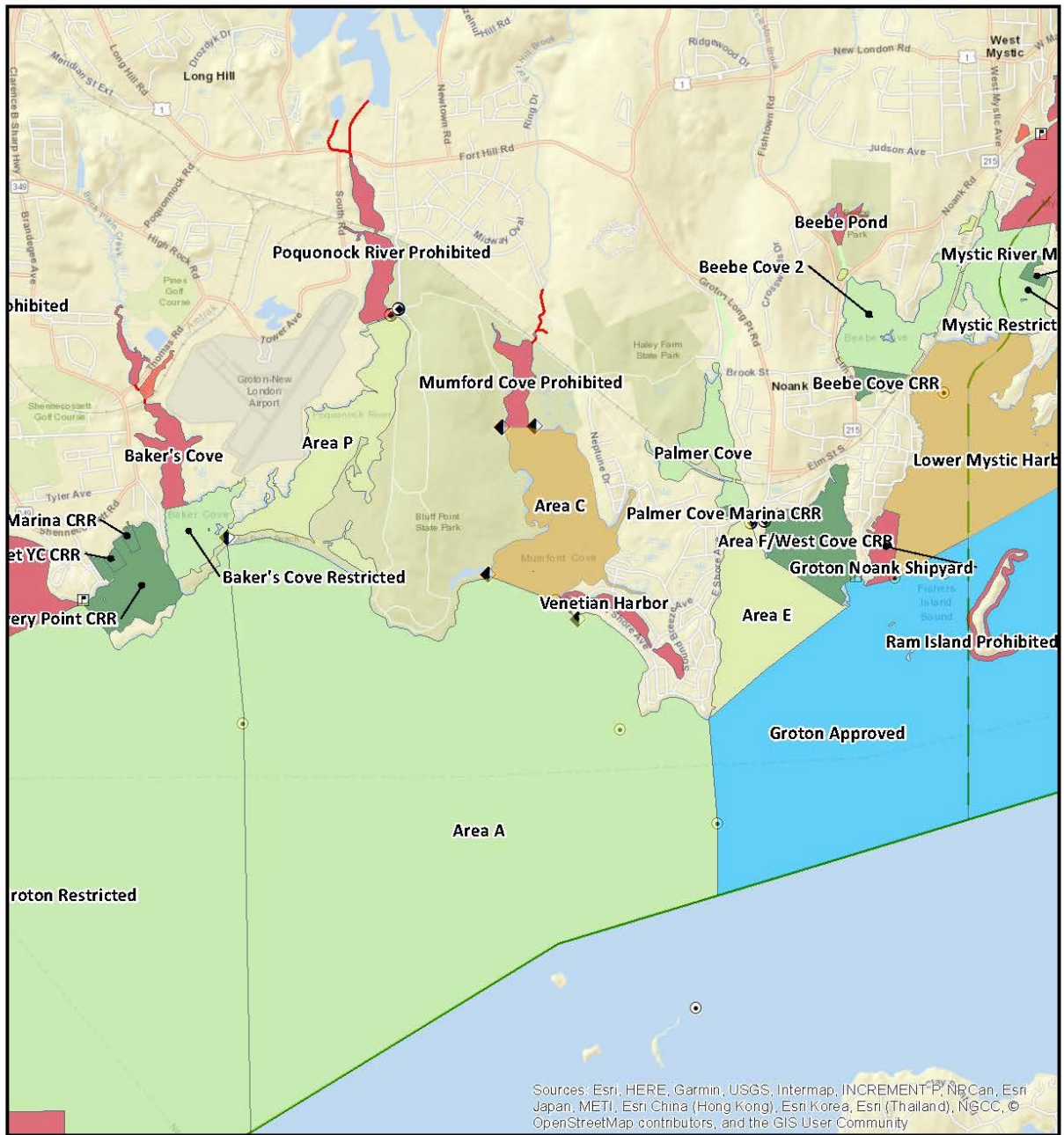
Close cooperation with the Connecticut Department of Agriculture/Bureau of Aquaculture and its laboratories is maintained and encouraged.

# ATTACHMENT 1 – MAPS OF THE TOWN OF GROTON SHELLFISH AREAS

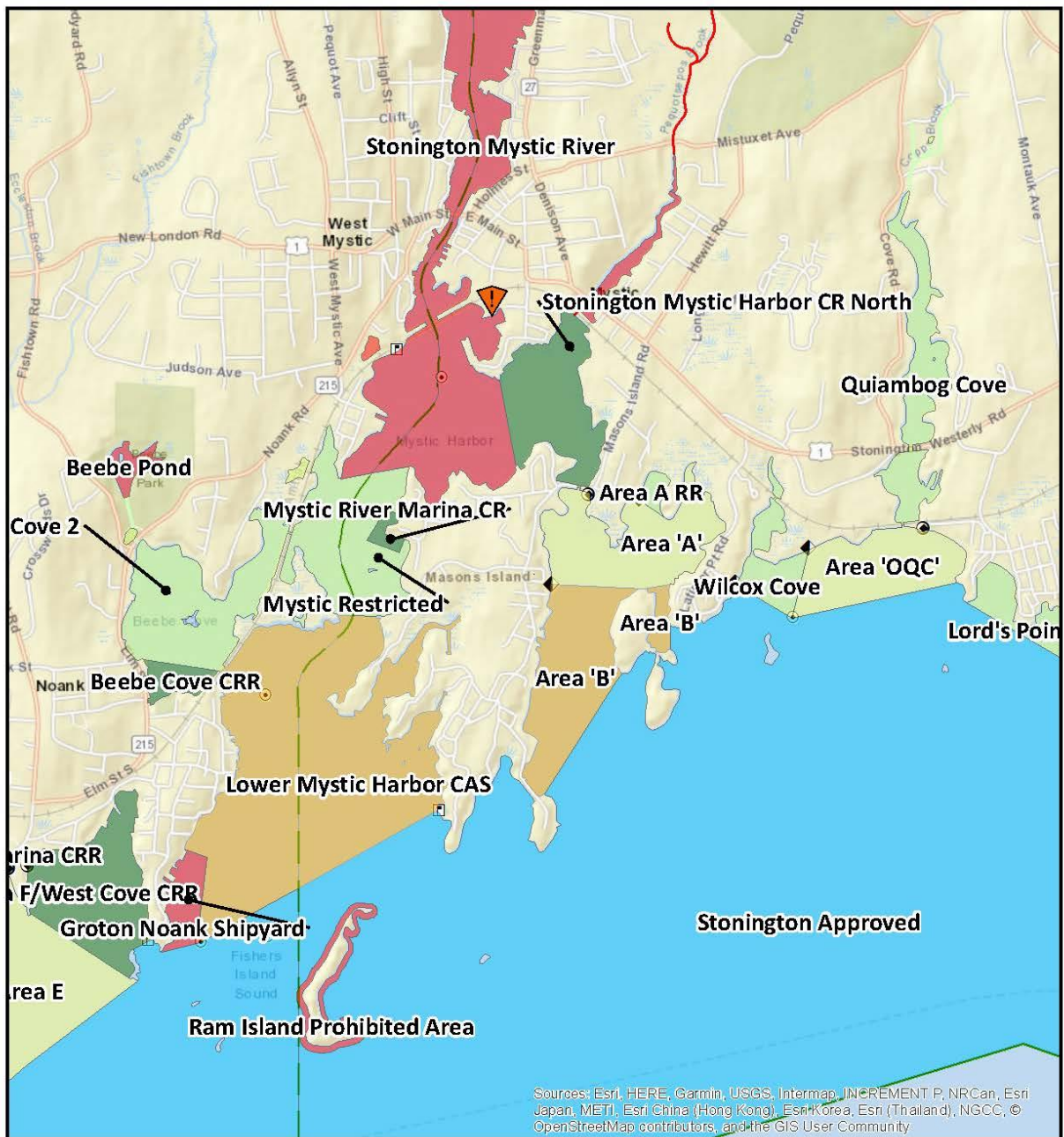


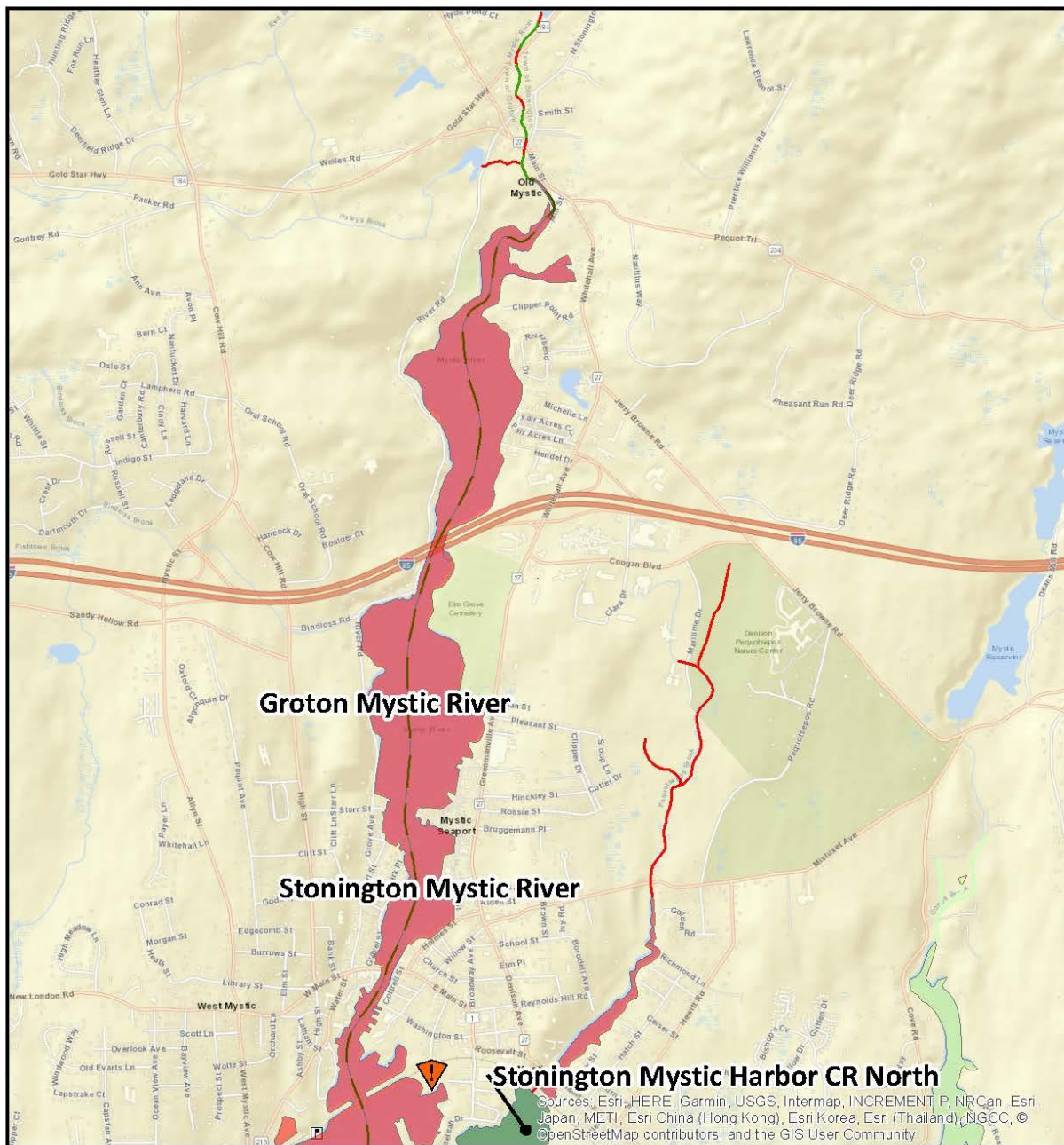






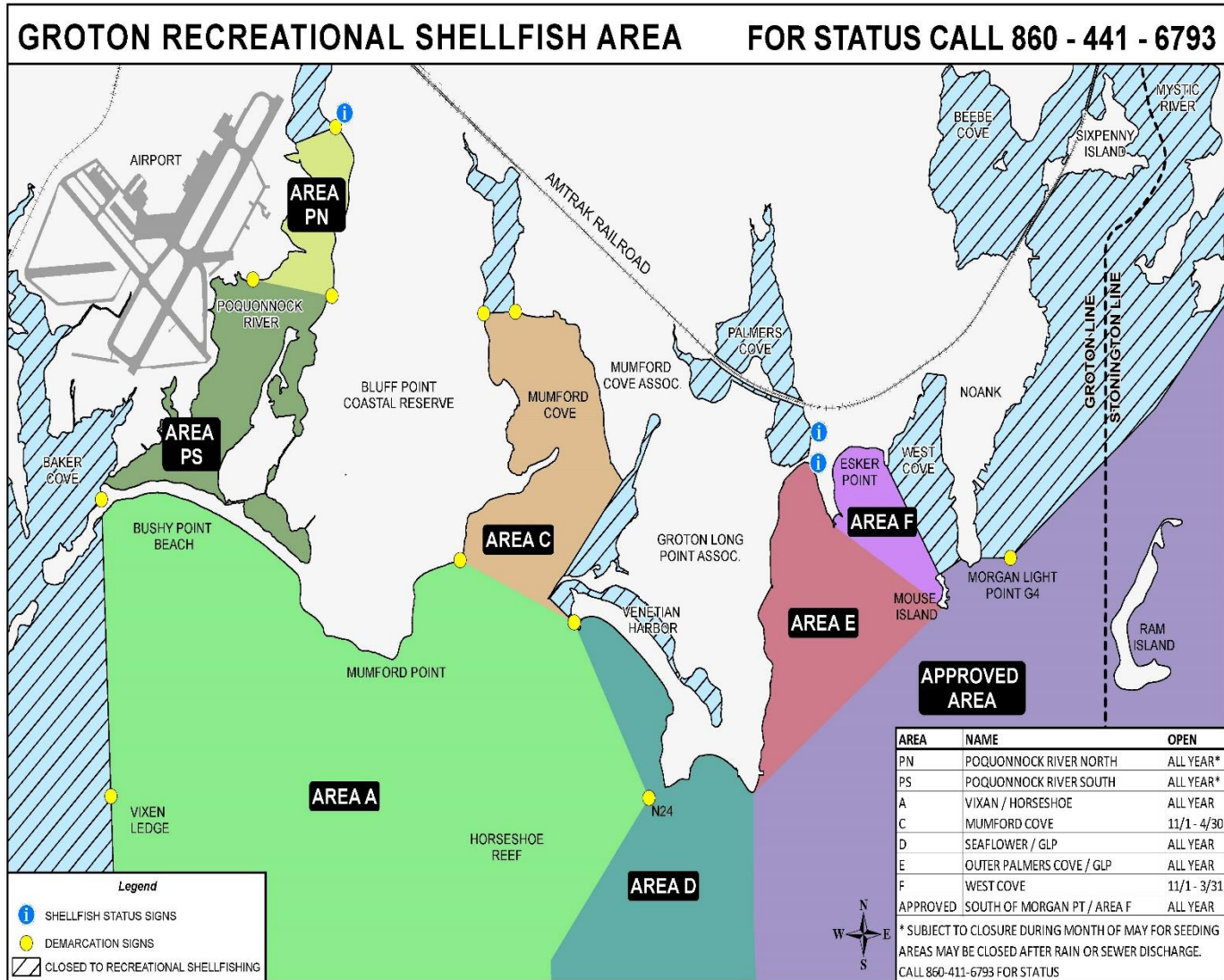








# ATTACHMENT II - DESIGNATED RECREATIONAL SHELLFISH AREAS, TOWN OF GROTON



**Town of Groton**

**Shellfish Lease & Co-Management Areas**

**Legend**

- Shellfish Lease Area
- Municipal Boundary
- Water Body
- Land Use
- Road
- Railroad
- Utility Line
- Boundary Line
- Water Body
- Land Use
- Road
- Railroad
- Utility Line
- Boundary Line

1 inch = 1,000 feet

Date January 15, 2016

## ATTACHMENT IV – DESIGNATED SHELLFISH AREAS IN THE TOWN OF GROTON

### CODE AREA

PS	Poquonnock River South
PN	Poquonnock River North
A	Vixen Ledge/Horseshoe Reef
E	Outer Palmer's Cove, Groton Long Point
C	Mumford Cove
D	Groton Long Point West
F	West Cove Anchorage

OPEN AREA — Waters South of Morgan Pt. &  
Area E & East of Area D

### CLOSED TO RECREATIONAL SHELLFISHING

(includes all other Groton waters not shown on map as open)

TOWN OF GROTON RECREATIONAL SHELLFISH AREAS  
FOR CURRENT STATUS CALL 860-441-6793

AREA	TIME OPEN	TIME OPENED
(P)	POQUONNOCK RIVER	ALL YEAR
(A)	VIXEN LEDGE/ HORSESHOE REEF	ALL YEAR
(E)	OUTER PALMER'S COVE/ GROTON LONG POINT	ALL YEAR
(F)	WEST COVE ANCHORAGE	CLOSED
(C)	MUMFORD COVE	NOV. 1- APR. 30
(D)	GROTON LONG POINT WEST	ALL YEAR
OPEN AREA (SOUTH OF MORGAN PT.) & AREA E & EAST OF AREA D		ALL YEAR

AREAS ARE CLOSED IF ONE INCH (1") OR GREATER RAINFALL, SEWER DISCHARGE, RED TIDE OUTBREAK, OR IN THE EVENT OF A FAILED "DRY WEATHER OPEN" WATER SAMPLE.

SIGNS INDICATING CONDITIONAL AREAS STATUS LOCATED AT BLUFF POINT PARKING LOT AND ESKER POINT BEACH: **OPEN**: WHITE "AREA" SIGN DISPLAYED; **CLOSED**: RED "AREA" SIGN DISPLAYED

SHELLFISHING PERMITTED FROM SUNRISE TO SUNSET

## ATTACHMENT V – RECREATIONAL SHELLFISHING FEES AND REGULATIONS

**PERMIT FEES  
EFFECTIVE FEBRUARY 25, 2020**

TIME PERIOD	RESIDENT	NON-RESIDENT
Daily	\$8.00	\$10.00
Weekly	15.00	20.00
Monthly	20.00	30.00
Yearly	35.00	50.00
Oysters (Daily)	10.00	15.00
Seniors (65 yrs.) (Yearly)	15.00	25.00

### Scallops (Daily)

Rate will vary depending on season

**Anyone over 12 years of age must have a permit.** Persons 12 years of age and under may take shellfish without a permit, in conformance with all shellfish regulations, if accompanied by an adult 18 years of age or older holding a valid permit.

**QUOTAS:**

- One (1) peck (about 2 gallons) per day for Hard Shell Clams, Common Surf Clams, Soft Shell Clams, Blue Mussels, Atlantic Razor Clams or any combination.
- 30 oysters per day per permit.  
Oyster season is open September 1<sup>st</sup> through April 30<sup>th</sup> on an annual basis.
- Amount of Bay Scallops allowed will depend on supply available.



## **ATTACHMENT V - Continued**

### **TOWN OF GROTON SHELLFISH COMMISSION**

This pamphlet contains regulations governing recreational shellfishing in the Town of Groton. The map on the reverse side shows the areas where recreational shellfishing is permitted. Commercial shellfishing is permitted in areas not readily accessible to recreational shellfishing provided the necessary State and Town permits are obtained. Income to the Groton Shellfish Commission is from the sale of permits and from commercial lease fees. Income is used to defray the expense of mandated shellfish patrols and to support programs designed to enhance recreational shellfishing in the Town of Groton, e.g., stocking of clams and oysters

Additional Information may be obtained by contacting a member of the Shellfish Commission or by writing to:

Groton Shellfish Commission  
Town of Groton  
45 Fort Hill Road  
Groton, CT 06340-4393

For the current status of recreational shellfish areas (see map on back) call: 860-441-6793

Revision

September 1, 2019

## ATTACHMENT V Continued

### REGULATIONS FOR HARVESTING CLAMS, MUSSELS & OYSTERS

Under the provisions of Chapter 492 Section 26-257a and 26-290 of the State of Connecticut General Statutes, the Groton Shellfish Commission has adopted the following regulations concerning the taking of clams, mussels, and oysters in the open and conditionally open waters of the Town of Groton.

1. No person shall take any clams, mussels or oysters from Town waters without first obtaining a permit issued by the Shellfish Commission. Permits may be obtained at the Groton Town Clerk's Office, the Town Police Station, and Ken's Tackle Shop. All persons over 12 years of age need a permit. Persons 12 years of age and under may take shellfish without a permit, in conformance with all shellfish regulations, if accompanied by an adult 18 years of age or older holding a valid permit.
2. Shellfish may only be taken from open or conditionally open waters. Call 860-441-6793 for status.
3. Shellfishing is permitted only between sunrise and sunset.
4. Daily limit for recreational shellfish shall be one peck (about 2 gallons) per day per person for Common Surf Clams (Spisula solidissima), Hard Shell Clams (Mercinaria mercinaria), Atlantic Razor Clams (Ensis directus), Soft Shell Clams (Mya arenaria) or Blue Mussels (Mytilus edulis) or any combination. Daily limit for Eastern Oysters is thirty (30).
5. No Hard Shell or Soft shell clams or mussels may be taken measuring less than two inches (2") in greatest length. No Eastern razor clams may be taken measuring less than four inches (4") in greatest length. No oysters may be taken measuring less than three inches (3") in greatest length. All shellfishers shall have a measuring device in their possession.
6. The shellfish permit, personal ID, and catch must be immediately available for inspection upon demand of Shellfish Commission Members, Shellfish Wardens, or designated enforcement officers of the Town of Groton or State of Connecticut.
7. All shellfish illegally taken must be immediately returned to waters at least 18 inches deep (at low tide).
8. No tongs, rakes, or forks with openings less than 1 inch may be used for taking shellfish. No shovels or spades shall be used for digging any species of clams.
9. Taking of shellfish by skin diving or SCUBA is prohibited unless special permission is granted by the Groton Shellfish Commission.
10. Any person who violated any shellfish regulations is subject to a fine of not more than \$50.00 or imprisonment for not more than 30 days or both.

## **ATTACHMENT VI - CONNECTICUT GENERAL STATUTES, CHAPTER 492**

### **Section 26-192**

**26-192(a)** The Department of Agriculture shall be the lead agency on shellfish in Connecticut. The department: (1) Shall coordinate the activities of other state agencies with regard to shellfish; (2) shall act as a liaison on shellfish matters between the state and municipalities, including local shellfish commissions; (3) shall take steps necessary to ensure compliance with federal standards for the shellfish sanitation program and compliance with the National Shellfish Sanitation Program Model Ordinance, as amended from time to time; (4) may, in conjunction with the Department of Public Health, enter into agreements with municipalities to utilize available municipal resources for monitoring and testing; and (5) shall encourage depuration.

**26-192(b)** Notwithstanding the provisions of subsection (a) of section 19a-29a, the Department of Agriculture shall promulgate health standards for shellfish testing and shall approve private laboratories to perform shellfish testing. Such health standards for shellfish testing shall incorporate by reference the provisions of the National Shellfish Sanitation Program Model Ordinance, as amended from time to time.

**26-192(c)** (a) The Department of Agriculture may inspect shellfish beds and areas in this state where shellfish are grown or harvested, all boats, tools and appliances used in the production and preparation of shellfish and all wharves or buildings where shellfish are stored, transferred, opened, packed or prepared for sale or shipment. The Department of Agriculture may adopt regulations, in accordance with the provisions of chapter 54, after consultation with the Department of Public Health, for the sanitary growth, production, purification and preparation of shellfish. Such regulations shall incorporate by reference the provisions of the National Shellfish Sanitation Program Model Ordinance, as amended from time to time. Each commercial harvester, producer or shipper of shellfish shall obtain from said department a license on which shall be stated information regarding the identification of the license holder and any conditions pertaining to the character of such licensee's shellfish operations. Said department may establish a fee for each type of shellfish license it issues. The department may require that shellfish shipments be tagged or containers marked to identify the shipper by name and location and the source of the shipment and furnish such other pertinent information as may apply. Any license granted under the authority of this section may be revoked by said department for cause, after notification and hearing. No person, firm or corporation shall make any shipments or deliveries of shellfish after the license of such person, firm or corporation has been suspended or revoked. Any license may be suspended pending revocation proceedings, or amended, if shellfishing operations or harvesting areas are a public health hazard or if the licensee has violated any provision of this section, section 26-192e, 26-192f or 26-192h or any applicable department regulation or any section of the Public Health Code concerning shellfishing. The department may refuse to issue a license if the applicant has violated any provision of this section, section 26-192e, 26-192f or 26-192h or any applicable department regulation or any section of the public health code concerning shellfish.

(b) The Department of Agriculture may delegate its licensing authority pursuant to this section and sections 26-192f and 26-192h to other state agencies and to local agencies.

**26-192(d)** Any person, firm or corporation aggrieved by any order, suspension or revocation of a license made under the provisions of sections 26-192c to 26-192i, inclusive, may appeal therefrom in accordance with section 4-183, except venue for such appeal shall be in the judicial district in which the business or residence of such person, firm or corporation is located.

**26-192(e)** (a) The Department of Agriculture may prohibit the taking or harvesting of shellfish from designated areas in tidal flats, shores and coastal waters whenever it finds by examinations or surveys that such flats, shores or coastal waters are contaminated or polluted to the extent that the waters do not meet standards of purity established by said department, in conjunction with the Department of Public Health, or that shellfish obtained therefrom may be unfit for food or dangerous to the public health. The Department of Agriculture shall classify the coastal waters, shores and tidal flats for the taking of shellfish. The classifications shall be: Approved, conditional, restricted, conditionally restricted, and prohibited. The conditional classification shall include conditional-open and conditional-closed. Any person aggrieved by a classification decision pursuant to this section may appeal such decision in accordance with the provisions of chapter 54. An area may be classified as prohibited for the taking or harvesting of shellfish unless it conforms to the standards established by the department for classifications other than prohibited. The department may specify the activities which may occur within each classified area. Such activities shall be listed on a shellfish license issued by the department. Waters and areas classified as approved or conditional-open shall conform to standards of purity, shall be free from discharge of sewage or other deleterious substances, and the shellfish obtained therefrom shall not be so polluted or contaminated as to be dangerous to the public health. The Department of Agriculture may delegate its authority for the classification of tidal flats, shores and coastal waters for the taking of shellfish pursuant to this section to other state agencies and local agencies.

(b) The department shall, by written order, promulgate definite bounds of the area or areas closed to shellfishing when classified as conditional-closed, conditionally restricted, restricted or prohibited. Such order shall become effective when (1) the closure classification is published in a newspaper having circulation in towns, cities and boroughs in which or adjacent to which any such area is situated; (2) the classification is filed in the offices of the clerk and the director of health in each such town, city or borough, and (3) signs are posted at points on or near every such classified area.

(c) Notwithstanding the provisions of subsection (b) of this section, when the Commissioner of Agriculture, after consultation with the Commissioner of Public Health, finds that tidal flats, shores or coastal waters which may contain shellfish are so contaminated or polluted that a health emergency exists, he may close such area for the duration of such emergency by giving notice of such emergency closure (1) in writing to the municipal or district health authority, and (2) to the general public by publication in a newspaper having general circulation in the town, city or borough within which such area lies. Such notice shall state when the closing shall take effect.

(d) No person shall take or harvest shellfish from areas classified as conditional-closed, restricted, conditionally restricted or prohibited pursuant to subsections (a) and (b) of this section or closed because of a health emergency pursuant to subsection (c) of this section or from areas or parts of areas where shellfish have been transplanted or relayed except in accordance with the terms and conditions of a license issued pursuant to section 26-192c

or section 26-192h. The Department of Agriculture may delegate its authority for the classification of coastal waters, shores, and tidal flats for the taking of shellfish pursuant to this section to other state agencies and local agencies.

**26-192(f)** Any person, firm or corporation (1) harvesting or taking shellfish from an area closed and posted by the Department of Agriculture against the removal of shellfish, except as provided in section 26-192h, or an area closed by commercial shellfish transplant license issuance or by order of the local director of health with the approval of the department, (2) misusing any shipping tag or license in violation of section 26-192c, (3) mislabeling shellfish shipments or deliveries with any false information, (4) failing to identify shellfish shipments or deliveries in accordance with the National Shellfish Sanitation Program Model Ordinance, as amended from time to time, (5) harvesting shellfish from undesignated grounds, or (6) harvesting shellfish from designated grounds not listed on a license issued by the Department of Agriculture to such person, firm or corporation shall be fined (A) one thousand dollars, or (B) three times the market value of any shellfish taken, based on the quantity and type involved in the violation if such amount is greater than one thousand dollars, or imprisoned not more than one year. The Commissioner of Agriculture may revoke any license issued by said commissioner for up to sixty days for the second violation of this section within six months and up to ninety days for a third violation of this section within nine months. Any person who defaces or removes a sign posted by the Department of Agriculture in accordance with the provisions of section 26-192e shall be fined not more than five hundred dollars or imprisoned not more than six months. The provisions of this section are in addition to and in no way derogate any other enforcement provisions or penalties contained in any other section of the general statutes.

**26-192(g)** The provisions of sections 26-192e and 26-192f relating to the unauthorized taking of shellfish in contaminated and posted areas shall be enforced by local directors of health. Local police departments and the state shellfish police shall assist to effectively prevent the harvesting of shellfish in classified areas which are closed to shellfishing when requested by a local director of health.

**26-192(h)** Shellfish may be taken by commercial harvesters from areas classified as conditional-closed, restricted, or conditionally restricted when they are removed for transplanting, relay, including seed oyster harvesting, depuration or depletion from prohibited areas under licenses issued by the Department of Agriculture and under supervision of the department and local health agencies having jurisdiction, provided said licensee shall notify the designated local enforcement agency of the intended commencement, probable duration and termination of harvesting within that jurisdiction and shall be limited to quantities as may be established by a shellfish management plan reviewed by the Department of Agriculture and adopted by the local shellfish commission or other local agency having jurisdiction over the shellfish. The issuance of licenses by the Department of Agriculture shall not prohibit any town, city or borough from control of harvesting operations in approved areas or conditionally or temporarily closed areas on the basis of residence, quantity or size of shellfish harvested from specific areas, or time of harvesting, or nullify any state law controlling such operations on the basis of residence, quantity or size of shellfish harvested, or time of harvesting.

**26-192(i)** When used in sections 26-192c to 26-192h, inclusive, the term “shellfish” means mussels, oysters, all varieties of clams and whole and roe-on scallops, but does not include scallops if the final product is the shucked adductor muscle only.

**Sec. 26-240. Town ground; designation; designation requirements and prohibitions; hearing.**

(a) Any person desiring to plant or cultivate oysters, clams or mussels, in any waters within town jurisdiction, may apply in writing, to the shellfish commission or to selectmen authorized to act, of the town where such grounds are situated, to designate a suitable place to be used by him for that purpose, and such commission or selectmen may make such designation and such applicant shall make and stake out such place and may enclose it with buoys or with stakes, set at suitable distances and distinctly visible above the surface at high water. Such designation shall require the applicant to make a good faith effort to cultivate and harvest shellfish from the designated area. Such designation shall prohibit the applicant from entering a contract with another person that requires the applicant to refrain from cultivating or harvesting shellfish for any period of time except upon approval by the shellfish commission or selectmen, as applicable. Such commission or selectmen shall make a written description of such designation and enclosure, by ranges or otherwise, as may be most convenient, which shall state the time of such designation. The money derived from such designation by selectmen shall be paid to the town in which the same is made. The money derived from a designation by a shellfish commission shall be paid to the commission. A designation may be made to several in common, as well as to individuals. No such designation by the commission or the selectmen shall become effective or be established until after a public hearing in relation thereto has been held by the commission or selectmen authorized to act for that purpose at which parties in interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper having substantial circulation in such municipality at least twice at intervals of not less than two days before the hearing. A copy of the written application for the designation shall be filed in the office of the town clerk in such municipality for the public inspection at least fifteen days before such hearing and shall be published in full in such newspaper.

(b) Notwithstanding the provisions of subsection (a) of this section, any owner of a utility line or public use structure that impacts a designated area shall pay to the designee the costs of removing or relocating any shellfish. Nothing in this subsection shall be construed to prohibit the state, the shellfish commission, the board of selectmen or a designee from recovering damages incurred by the state, the shellfish commission, the board of selectmen or the

designee caused by the installation, construction or presence of such utility line or public use structure.

### ***Section 26-257a - Local Shellfish Commissions***

(a) Any town, city or borough, acting by its legislative body or its board of selectmen, if a town, or its mayor, if a city, or its warden, if a borough, may establish a shellfish commission or may join with one or more other towns, cities or boroughs, acting by their respective legislative bodies or boards of selectmen or mayors or wardens, as the case may be, in establishing such a commission. The number of members and their term of office shall be determined by the legislative body or board of selectmen or mayor or warden, as the case may be, or, in the case of such joint action, by agreement of the legislative bodies or boards of selectmen or mayors or wardens, as the case may be.

(b) Such commission shall have charge of all the shellfisheries and shellfish grounds lying in such municipality or municipalities not granted to others and not under the jurisdiction of the Commissioner of Agriculture, including all rivers, inland waters and flats adjacent to all beaches and waters within the limits and marine bounds of the municipality or municipalities. The commission may designate suitable places in the navigable waters within its jurisdiction for planting or cultivating oysters, clams or mussels. The commission may issue licenses for the taking of shellfish therefrom and fix the fees therefor, may designate the quantities of such shellfish to be taken, the sizes of such shellfish and the methods of taking. The commission may prohibit the taking of such shellfish from certain designated areas for periods not in excess of one year. All moneys collected by the commission under the provisions of this section shall be paid to the commission and used by it for the protection and propagation of the shellfish under its control. Any person who violates any regulation issued by the commission pursuant to this section shall be fined not more than two hundred fifty dollars.

(c) The commission shall prepare and periodically update a shellfish management plan. The plan shall be submitted to the Commissioner of Agriculture and any appropriate board of selectmen, mayor or warden for review and comment.

(d) All updates to the commission's shellfish management plan made pursuant to subsection (c) of this section and any comments made by the Department of Agriculture regarding such updates shall be in writing and shall be subject to the provisions of chapter 14 of the Connecticut General Statutes.

**ATTACHMENT VII - ORDINANCE NO. 139: AN ORDINANCE  
ESTABLISHING THE SHELL-FISH COMMISSION OF THE TOWN OF  
GROTON BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF  
GROTON:**

*SECTION 1 There is hereby established a Shell-Fish Commission for the Town of Groton, consisting of five (5) regular members and three (3) alternate members, all of whom shall be resident electors of the Town of Groton and none of whom shall during the term of their office serve in any capacity as enforcement officers for or on behalf of said Shellfish Commission. Such Commission shall have all of the rights, powers, duties and obligations conferred and imposed by Chapter 492 of the General Statutes of Connecticut, and as the same may from time to time be amended. Such alternate members shall when seated have all the powers and duties set forth in said General Statutes relating to the Shellfish Commission and its members.*

*SECTION 2 The Town Council, on or before January 1, following the adoption of this Ordinance, shall appoint five (5) members whose terms shall commence on said January 1. Of those members first appointed, one regular member shall be appointed for a term of one (1) year, one for a term of two (2) years, one for a term of three (3) years, one for a term of four (4) years, and one for a term of five (5) years, and one of the alternate members shall be appointed to serve for three (3) years, one for four (4) years, and one for five (5) years. Thereafter, the Town Council shall appoint a regular member and alternate member of said Commission for a term of five (5) years from and after the expiration of the term of his predecessor in office, or until his successor is appointed and has qualified. Such vacancies as may occur shall be filled by the Town Council for the unexpired portion of any term. The Town Council may remove any member of the Shell-Fish Commission for cause and upon written notice.*

*SECTION 3 The members of the Shell-Fish Commission shall designate one of their number to be Chairman and one to be the Secretary of said Commission. Regular meetings of the Shell-Fish Commission shall be held at such times as the Commission may determine, and at all other times at the call of the Chairman. The Commission shall hold at least four (4) meetings annually. Three members of said Commission shall constitute a quorum for the transaction of business. The Commission shall keep accurate minutes and records of its proceedings and official actions, showing the vote of each member upon any question, or the absence or the failure of any such member to vote.*

*SECTION 4 The Shell-Fish Commission of the Town of Groton shall have charge of all the shell-fisheries and shell-fish grounds lying within the jurisdiction of the Town of Groton, not granted to others and not under the jurisdiction of the Commissioner of Agriculture, including all rivers, inland waters and flats adjacent to all beaches and waters within the limits and marine bounds of said Town of Groton. The Commission may issue licenses for the taking of shell-fish therefrom and fix the fees therefor, may designate the quantities of such shell-fish to be taken, the sizes of such shell-fish and the methods of taking. The Commission may prohibit the taking of such shell-fish from certain designated areas for periods not in excess of one year. All moneys collected by*



*the Commission under the provisions of this section shall be paid to the Commission and used by it for the protection and propagation of the shell-fish under its control.*

*SECTION 5 The Shell-fish Commission shall have the power to adopt, amend and repeal rules and regulations governing its procedures and the exercise of its powers and duties. All such rules and regulations shall be subject to the approval of the Town Council prior to becoming effective. Such regulations and any amendments, or the repeal thereof, shall take effect immediately upon filing in the office of the Town Clerk after such approval.*

*SECTION 6 Any person who violates any regulation issued by the Shell-fish Commission pursuant to this section shall be fined not more than fifty dollars (\$50.00) or imprisoned not more than thirty (30) days or both.*

*Adopted by the Town Council on December 18, 1978.*

*Effective date January 21, 1979.*

*Attest Town Clerk*

## ATTACHMENT VIII

### **Groton Shellfish Commission Co-Management Agreement (CMA)**

**No.** \_\_\_\_\_  
**Co-Management Agreement**

This authorization issued to: \_\_\_\_\_  
Of \_\_\_\_\_  
entitles the party here in named to conduct aquaculture operations, described below,  
under the jurisdiction of the Groton Shellfish Commission, in the location designated in  
Attachment III for a period from \_\_\_\_\_ to \_\_\_\_\_.

Description of Aquaculture Experiment  
Planned: \_\_\_\_\_

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**Fee:** The Fee for this CMA is \$ \_\_\_\_\_ acre and/or % of the shellfish harvested.

Other charges include: \_\_\_\_\_ .

Cash charges are due on the date of issue.

Reporting: Applicant must file monthly reports to the GSC outlining progress of the experiment. Upon completion of the work a final report is due within 30 days describing results and conclusions. Failure in the reporting procedure represents grounds for termination of CMA.

**Conditions:** The CMA permit is issued to the applicant named above and is not transferable. The applicant must follow the conditions outlined in the Town of Groton Shellfish Management Plan. No moorings may be placed in the area. All equipment used must be identified with applicants name and must not interfere with boat navigation. Excessive noise pollution, especially adjacent to residential areas is not permitted. Recreational shellfish areas must not be used. The applicant's equipment and vessels shall be available for inspection by the GSC, its agents, and law enforcement personnel at any time. In the event the applicant neglects to pay the CMA fee or shall default in any way on one or more of the stipulations herein contained, it is the option of the GSC to terminate this CMA and require the applicant to restore the site to its pre-agreement condition.

Regulations: This authorization is made in accordance with the provisions of the National Shellfish Sanitation Program Manual and the Public Health Code of the State of

*Connecticut. The authorized party agrees that all shellfish harvested for direct consumption will be taken from approved areas only and not from areas closed to shellfishing. All shellfish harvested from closed areas will be taken under authorizations issued by the Connecticut Department of Agriculture/Bureau of Aquaculture and the Groton Shellfish Commission to transplant the shellfish from noncertified water. The authorized party is responsible for obtaining and complying with all necessary authorizations and permits required by the Connecticut Department of Agriculture/Bureau of Aquaculture, the Connecticut Department of Energy and the Environment, and the U.S. Army Corps of Engineers.*

***In signing this CMA the permittee agrees to the above fees, conditions, and regulations contained in The Town of Groton Shellfish Management Plan***

*Authorized Party:*\_\_\_\_\_

*Chairman, Groton Shellfish Commission:*\_\_\_\_\_

*Date of Issue:*\_\_\_\_\_

*Fee Paid \$:*\_\_\_\_\_

*Attachment I (Sketch of Area)*

*Submitted by*\_\_\_\_\_ *on* \_\_\_\_\_.

*Approved by*\_\_\_\_\_ *on* \_\_\_\_\_.

*Attachment II (Other conditions of the authorization)*

## ATTACHMENT IX

### GROTON SHELLFISH COMMISSION – AQUACULTURE AUTHORIZATION

*This aquaculture authorization issued to: \_\_\_\_\_  
of \_\_\_\_\_*

*entitles the party herein named to conduct aquaculture operations, described below,  
under the jurisdiction of the Groton Shellfish Commission, in the location designated in  
Attachment III for a period from \_\_\_\_\_ to \_\_\_\_\_.*

*This authorization is issued in accordance with section 26-257a of the General Statutes  
of Connecticut, Revision 1975. The area designated for aquaculture operations is shown  
in Attachment III.*

*Description of Aquaculture Operations:*

\_\_\_\_\_  
\_\_\_\_\_

***FEE:*** *The fee for this authorization is \$ \_\_\_\_\_ per acre per year payable on the date of issue. This  
authorization is issued to the party named above for one year with an option for annual renewal for a  
period of \_\_\_\_\_ years. Subsequent yearly fee payments are due on the anniversary date of the license. Other  
charges include: \_\_\_\_\_*

***Conditions:*** *The authorization is issued to the applicant named above and is not transferable. If payment of  
the authorization fee is not received within 30 days of date due the authorization may be forfeited. Renewal  
of options must be negotiated 30 days prior to anniversary date. The authorization area must be properly  
marked at all times and use of the area shall not impede normal navigation. No moorings may be placed in  
the area. The authorized party shall file an annual report which summarizes the aquaculture activities  
conducted the preceding year. Annual report is due on permit anniversary date. The authorized party's  
equipment and vessels shall be available for inspection by the commission, its agents, and law enforcement  
personnel at any time. In the event the authorized party neglects to pay the authorization fee on time or  
shall default in anyway on one or more of the stipulations herein contained, it is the option of the Groton  
Shellfish Commission to terminate this authorization. In exercising its option to terminate this  
authorization, the commission shall give the authorized party written notice of termination (by registered  
or certified mail) with the opportunity to take corrective action at least 60 days prior to such termination.  
This authorization expires one year from the below date of signature by the issuing agent. The authorized  
party is responsible for obtaining and complying with all necessary authorizations and permits required by  
the Connecticut Department of Agriculture/Bureau of Aquaculture, the Connecticut Department of Energy  
and the Environment, and the U.S. Army Corps of Engineers.*

***Regulations:*** *This authorization is made in accordance with the provisions of the National Shellfish  
Sanitation Program Manual and the Public Health Code of the State of Connecticut. The authorized party  
agrees that all shellfish harvested for direct consumption will be taken from approved areas only and not  
from areas closed to shellfishing. All shellfish harvested from closed areas will be taken under  
authorization issued by the Connecticut Department of Agriculture/Bureau of Aquaculture and the Groton  
Shellfish Commission to transplant the shellfish from noncertified waters.*

***In signing this authorization, the authorized party agrees to the above fees,  
conditions, and regulations.***

***Authorized Party:*** \_\_\_\_\_

***Chairman, Groton Shellfish***

***Commission:*** \_\_\_\_\_

**Date of Issue:** \_\_\_\_\_

**Fee Paid \$:** \_\_\_\_\_

**ATTACHMENT X**

**GROTON SHELLFISH COMMISSION - TRANSPLANTING AUTHORIZATION**

*This transplanting authorization is issued to: \_\_\_\_\_  
of \_\_\_\_\_*

*entitles the party herein named to transplant shellfish in the waters under the jurisdiction of the Groton Shellfish Commission at the location designated in Attachment III. This license is issued in accordance with Section 26-257a of the General Statutes of Connecticut, revision 1975.*

**FEE:** - *The fee for this authorization is \$ \_\_\_\_\_ per acre, per year, payable at the date of first issuance. Other charges include: \_\_\_\_\_*

**CONDITIONS:**

*This authorization is issued to the party named above for one year with option for annual renewal for a period of 5 years. Options must be acted on within 60 days of date due or shall be deemed void. Fee is payable on anniversary date.*

*If payment has not been made within 30 days of the date due the authorization may be terminated. The authorization is not transferable. The transplanting area must be registered with the Connecticut Department of Agriculture/Bureau of Aquaculture. The license is issued for the purpose of shellfish transplanting only, and does not transfer rights to any naturally-occurring shellfish within the area. The transplanting area must be properly marked. Use of the area shall not impede normal navigation. The authorization shall file an annual report of the operations performed in the area, including the number of bushels and type of shellfish transplanted. The authorized party's equipment and vessels shall be available for inspection by the Commission, its agents, and law enforcement personnel at any time. In the event the authorized party neglects to pay the authorization fee on time or shall default in any way on one or more of the stipulations herein contained, it is the option of the Groton Shellfish Commission to terminate this authorization. In exercising its option to terminate this authorization, the Commission shall give the authorized party written notice of termination by registered or certified mail with the opportunity to take corrective action at least 60 days prior to such termination. This authorization expires one year from the below date of signature by the issuing agent.*

**REGULATIONS:**

*This authorization is made in accordance with the provisions of the National Shellfish Sanitation Program Manual and the rules and regulations outlined by the Connecticut Department of Agriculture/Bureau of Aquaculture. Failure to comply with the stipulated regulations could result in forfeiture of the authorization. In signing this authorization the authorized party agrees to the above fees, conditions, and Regulations. The authorized party is responsible for obtaining and complying with all necessary authorizations and permits required by the Connecticut Department of Agriculture/Bureau of Aquaculture, the Connecticut Department of Energy and the Environment, and the U.S. Army Corps of Engineers.*

**AUTHORIZED PARTY:** \_\_\_\_\_

**CHAIRMAN, GSC:** \_\_\_\_\_

**DATE OF ISSUE:** \_\_\_\_\_

**FEE PAID \$:** \_\_\_\_\_

## ATTACHMENT XI

### GROTON SHELLFISH COMMISSION – HARVEST AUTHORIZATION FROM CLOSED WATERS

*This harvest (transplant) authorization issued to: \_\_\_\_\_ entitles the party herein named to harvest shellfish from "closed" waters under the jurisdiction of the GSC during the period of \_\_\_\_\_ The area designated for harvesting is depicted in Attachment III. Harvest is limited to bushels. This permit is issued in accordance with section 26-257a of the general statutes of Connecticut revision 1975. Shellfish harvest, as well as subsequent depuration, must comply with regulations and conditions outlined by the Connecticut Department of Agriculture/ Bureau of Aquaculture.*

***FEE:*** *The fee for this authorization shall be \$ \_\_\_\_\_ per boat per year and % of the shellfish taken. As an option to a % of the harvest the authorized party is charged \$ \_\_\_\_\_ per bushel harvested.*

***CONDITIONS:*** *The town's share of the harvest after depuration shall be transplanted by the authorized party in healthy condition to areas designated by the GSC. The depurated shellfish shall be representative of the shellfish originally harvested and not culled to limit any particular size. The area for harvesting must be properly marked. The authorized party is required to notify the Commission when operation in area assigned. The authorized party shall keep a daily log of shellfish harvested indicating the number of bushels, where taken and where relayed. Are part of the daily harvest must be filed monthly to the GSC. This log as well as the catch and the authorized party's equipment and vessels shall be available for inspection by the Commission, its agents, and law enforcement personnel at any time. The authorized party shall perform all harvesting and subsequent depuration activities in accordance with the laws and regulations of the State of Connecticut & GSC. Violation of such laws or regulations or of the terms and provision of this license may be grounds for fines, the revocation of the license or both.*

***Dated at Groton, Connecticut:*** \_\_\_\_\_

***Chairman, Groton Shellfish Commission:*** \_\_\_\_\_

In signing this authorization the authorized party agrees to the above terms and conditions The authorized party is responsible for obtaining and complying with all necessary authorizations and permits required by the Connecticut Department of Agriculture/Bureau of Aquaculture, the Connecticut Department of Energy and the Environment, and the U.S. Army Corps of Engineers.

***Authorized Party:*** \_\_\_\_\_

## ATTACHMENT XII

### GROTON SHELLFISH COMMISSION – HARVEST AUTHORIZATION FROM CERTIFIED (OPEN) WATERS

*This harvest authorization is issued to: \_\_\_\_\_ of \_\_\_\_\_ entitles the party herein named to harvest \_\_\_\_\_ bushels of clams from certified (clean) waters depicted in Attachment III and under the jurisdiction of the GSC during the time period: \_\_\_\_\_*

*This authorization is issued in accordance with Section 26-257a of the General Statutes of Connecticut, revision 1957. All operations must follow the rules and regulations of the Connecticut Department of Agriculture/Bureau of Aquaculture Division.*

***FEE:*** *The fee for this authorization shall be \$\_\_\_\_\_ per boat per year and % of the clams harvested. Alternatively a fee of \$\_\_\_\_\_ per bushel harvested may be charged.*

***CONDITIONS:*** *The town's share of the harvest shall be transplanted by the authorized party in healthy condition to areas designated by the GSC. The transplanting shall be done so as to equally disperse the shellfish in the transplant areas. The transplanted clams shall be representative of the shellfish actually harvested and not culled to limit a particular size. The area for harvesting must be properly marked. The authorized party must notify the GSC when active in the area assigned. The authorized party shall keep a daily log of shellfish harvested indicating the number of bushels, where taken, approximate size (necks, cherrystone, chowder, mix). A report of the daily harvests must be filed monthly to the GSC. The log as well as the catch and the authorized party's equipment and vessel shall be available for inspection by the Commission, its agents, and law enforcement personnel at any time. The authorized party shall perform all activities in accordance with the laws and regulations of the State of Connecticut Department of Agriculture/Bureau of Aquaculture, and the GSC.*

***Dated at Groton, Connecticut, this day of \_\_\_\_\_***

***Chairman, Groton Shellfish Commission: \_\_\_\_\_***

*In signing this authorization the authorized party agrees to the above terms and conditions. The authorized party is responsible for obtaining and complying with all necessary authorizations and permits required by the Connecticut Department of Agriculture/Bureau of Aquaculture, the Connecticut Department of Energy and the Environment, and the U.S. Army Corps of Engineers.*

***Authorized Party: \_\_\_\_\_***

**ATTACHMENT XIII**

**GROTON SHELLFISH COMMISSION - CLAM HARVEST MONTHLY REPORT:  
(MONTH)\_\_\_\_\_**

*Per each date, list the location from which shellfish were harvested or relayed, the quantity of shellfish harvested or relayed, and the final location of shellfish harvested and relayed*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.

**TOTAL HARVESTED OR RELAYED:**\_\_\_\_\_

*Note: This report must be received by the Groton Shellfish Commission on or before the 15th day of the following month. The per-bushel fee should be submitted with this report.*

**Name:**\_\_\_\_\_

**Groton Clam Harvest Authorization Number:**\_\_\_\_\_

**Address (if different from application):**\_\_\_\_\_



*Signature:* \_\_\_\_\_  
**ATTACHMENT XIV**

**GROTON SHELLFISH COMMISSION – EASTERN OYSTER SPAT  
COLLECTION**

**1. LOCATION:** \_\_\_\_\_

**CONDITIONS:** As marked below:

- A) Only in the Poquonnock River
- B) Collection bags must be placed in areas not normally used by boaters or swimmers.
- C) Must be plastic mesh bags not greater than 1 bushel size.
- D) Only collection material allowed will be shells.
- E) Bags placed in the river must be tagged so as to be easily identifiable

**2. ALLOWABLE HARVEST ( BU.):** \_\_\_\_\_

**CONDITIONS:** As marked below:

- A) Those wishing to collect oyster spat or seed must apply to the Commission prior to the June meeting of each year.
- B) If the requests exceed the set allowable harvest, the Commission will allocate the Harvest.
- C) Shells in bags may not be put in the river prior to June 10th, and all bags spat or not must be removed from the river by Sept 30.

**3. FEES**

- A) The fee of (\$ \_\_\_\_\_ ) per bushel will be payable upon approval of the application.

## ATTACHMENT XV

### GROTON SHELLFISH COMMISSION – WATER, SHELLFISH MEAT, AND PHYTOPLANKTON SAMPLING PROCEDURES AND FORMS

1. The most recent version of the **STATE OF CONNECTICUT DEPARTMENT OF AGRICULTURE BUREAU OF AQUACULTURE AN LABORATORY PROCEDURE FOR THE COLLECTION OF SEAWATER SAMPLES FOR BACTERIOLOGICAL EXAMINATION USED IN THE CLASSIFICATION AND MONITORING OF SHELLFISH GROWING WATERS**, the **PROCEDURE FOR THE COLLECTION OF SHELLSTOCK SAMPLES FOR BACTERIOLOGICAL and TISSUE EXAMINATION USED IN THE CLASSIFICATION OF GROWING AREAS**, and **PHYTOPLANKTON SAMPLING PROCEDURES** are attached below. All GSC sampling coordinators and sampling personnel should be thoroughly familiar with its terms and conditions.

2. The state-approved sampling forms for collection of water and shellfish meat samples are attached below.

3. All sampling shall be conducted in accordance with DA/BA procedures and laboratory restrictions. Sample collection is required at least two times per month. Rainfall events over 1- inch total, as determined by DA/BA monitoring of local rainfall gauges, or local sewer system bypasses will close all Groton shellfish beds until such time as water sampling can be conducted and passing sample results are obtained from the DA/BA laboratory. DA/BA will notify the GSC Commissioner of all closures and test results. Upon notification of closure, the shellfish bed status signs at Bluff Point (Area PN/PS) and Outer Palmer Cove (Area E) shall be changed to reflect the closure as soon as possible.

4. Sampling shall be done waterside from a vessel, whenever possible, to ensure good results. Shore-side sampling is permissible when necessary although samples should be taken as far from the nearshore as possible to ensure good results. See the attached map below for the state-approved waterside and shore-side sampling locations. The wardens have gate access keys for access to the west shoreline of Bluff Point. The airport side of the Poquonnock River may be accessed by contacting the Groton Airport Security Manager (Kurt Seinlein at 860-250-4701) giving as much lead time as possible.

5. After extreme rainfall events, it is desirable to postpone sampling for 2-3 days in order to allow water quality from storm water runoff to improve. Water sampling should be coordinated with the Stonington (Contact Don Murphy at [donald.l.murphy@snet.net](mailto:donald.l.murphy@snet.net) or 860-501-3169) and Waterford Shellfish Commissions (Rich Chmiel at [richchmiel@sbcglobal.net](mailto:richchmiel@sbcglobal.net)) and arrangements should be made for a sample driver from the Noank Aquaculture Cooperative (Contact Jim Markow at 860-460-4558 or [info@noankcooperative.org](mailto:info@noankcooperative.org)) to deliver the samples to the DA/BA lab in Milford, CT.

6. Obtaining and labelling sampling bottles, coolers and ice are the responsibility of the sampling team. GSC provides coolers and will reimburse for ice bought commercially. Note that the Noank Aquaculture Cooperative may be able to provide ice during its hours of operation. Spare sampling bottles are stored in the 14' and 20' vessels for emergency use.

7. Coast Guard on-water safety and boat operation procedures will be exercised by all sampling personnel, with particular attention paid to sampling in cold weather/water situations. Lifejackets will be worn at all times. Two samplers are required for any waterside cold-weather sampling events (December 1 through April 30th). At least one waterside sampler must have a cell phone in a waterproof case and have the Sea Tow emergency number available.

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**STATE OF CONNECTICUT  
DEPARTMENT OF AGRICULTURE  
Bureau of Aquaculture and Laboratory**

**PROCEDURE FOR THE COLLECTION OF SEAWATER SAMPLES FOR  
BACTERIOLOGICAL EXAMINATION USED IN THE CLASSIFICATION and  
MONITORING OF SHELLFISH GROWING WATERS**

**Department of Agriculture/Bureau of Aquaculture  
Date: 12/02/2008 Revised: 02/07/17**

**INTRODUCTION**

The Connecticut Department of Agriculture, Bureau of Aquaculture (DA/BA) is the lead agency on shellfish in Connecticut with the authority to classify shellfish growing areas and enact closures. Shellfish are filter feeding organisms that pump large quantities of seawater through their bodies as a part of the normal feeding process. As a result, any microorganisms that may be present in the growing area can become concentrated in shellfish meats by as much as 100 times that found in the water column. Sewage contamination is the main source of human pathogens in shellfish growing waters and the correlation between sewage pollution and disease has been well-demonstrated. In order to ensure the safety of shellfish for human consumption, shellfish growing areas are classified based on evidence of contamination<sup>1</sup>.

The DA/BA uses the guidelines and standards set forth by the National Shellfish Sanitation Program (NSSP) to classify Connecticut's shellfish growing areas. The NSSP is a Federal/State cooperative program, recognized by the United States Food and Drug Administration (FDA) and the Interstate Shellfish Sanitation Conference (ISSC), for the sanitary control of shellfish produced and sold for human consumption. Growing area classifications are based on evidence of contamination found through the sanitary survey. The sanitary survey includes the identification of actual and potential sources of pollution

that may adversely impact the growing area, an evaluation of meteorological and hydrographic factors, and an assessment of water quality. The sanitary survey demonstrates conformance to NSSP Model Ordinance (NSSP-MO) bacteriological criteria and the absence of dangerous levels of poisonous and deleterious substances.

The fecal coliform group is one of several fecal bacteria indicators used as an indicator of possible sewage contamination as they are commonly found in the intestinal tracts of warm-blooded animals and humans. Although they are generally not harmful themselves, their presence in streams or seawater suggests that disease-causing, or pathogenic, bacteria and viruses may also be present. Sources of fecal contamination to surface waters include wastewater treatment plants, septic systems, animal waste, and storm water runoff.

The DA/BA uses the membrane thermos-tolerant *Escherichia coli* (mTEC) method for fecal coliform enumeration. The mTEC test was approved by the ISSC in 2003 for use in classifying shellfish growing waters. Individual colonies of fecal coliform bacteria are counted on a membrane filter and reported as the number of colony forming units (CFU) per 100ml of seawater. Test results are available in twenty-four hours after initial inoculation. All state and municipal laboratories in Connecticut that are certified for bacteriological testing of shellfish growing waters use the mTEC method.

## **EQUIPMENT**

1. Use the 125 ml single-use sterilized plastic specimen bottles supplied by the DA/BA in Milford or the 125 ml reusable plastic bottles provided by the CT Department of Public Health (DPH) laboratory in Hartford for collecting seawater samples.

Use the sterilized 250 ml potable water bottles containing sodium thiosulfate when sampling sewage treatment plant outfalls in shellfish growing waters in order to neutralize any chlorine residual in the effluent.

Do not clean, boil or sanitize your own bottles for sample collection, as they cannot be accepted by the testing laboratory.

2. Use a water-sampling tool for sample collection. The sampling tool consists of a four (4) foot or longer handle with a clamp or holder at one end to securely hold a sample bottle in a vertical position while minimizing contact with mouth of the bottle and threads. A colored mark on the stick is positioned at 18" above the mouth of the bottle.

3. Cooler to hold samples.

4. Ice and frozen ice packs in cooler to cool and maintain the temperature of the samples to 50 degrees F (10 degrees C) or less until refrigerated or delivered to testing laboratory.

5. Tide chart for the area being sampled.

6. Nautical chart of area showing locations of sampling stations approved by DA/BA.

7. Shellfish seawater analysis laboratory collection forms and account number supplied by DA/BA, DPH Laboratory or private laboratory, respectively.

8. Disposable gloves as needed (recommended when working in areas suspected of being contaminated by sewage).

## **SAMPLE COLLECTION**

The seawater monitoring station number must be written on the label located on the side of the bottle with a pencil or waterproof pen. The monitoring station number will consist of the Town's state tax number followed by a dash (-) and DA/BA's assigned station number. Collection bottles must be properly stored to protect them from contamination. Do not use bottles that have been submerged in water or are visibly soiled. Bottles with loose or missing caps, soap film deposits or any other extraneous particles found in the interior of the bottle, severely deformed (concave) bottles, or bottles lacking labels should be returned to the Laboratory and not used to collect samples.

Place the capped sample bottle in the sampling tool clamp with the bottle opening facing up, then remove the cap. Take care not to contaminate the interior of the bottle, cap or cap threads at any time when the cap has been removed from the bottle. Using the sampling tool, quickly plunge the bottle below the surface of the water to a depth of at least 12 inches. Avoid collecting the boat wash when sampling from a boat. Collect samples upstream and as far away as possible from any bilge pump discharge. Always collect water that is coming toward you when wading in rivers or tributaries.

Remove the bottle from the water and pour out enough water to provide at least a ½ inch air space at the top of DA/BA single use sterile bottles. A one-inch air space is needed for Public Health Department laboratory reusable bottles. This air space is critical for proper mixing of the water sample in the laboratory. However, at least 100 ml of water is needed for analysis. As a guide, fill DA/BA bottles just below the bottom edge of the bottle cap and just below the "neck" of the Health Department reusable bottles. Replace the cap securely (tightly) on the bottle, remove the bottle from the clamp and place the bottle in the cooler with ice and ice packs. Keep bottles in upright position to prevent loss of sample in the event of leakage.

At the first station take two samples, label one with TC (temperature control) and label the other with the station number. Place these samples in the cooler. The "TC" sample will be handled the same as other samples but will only be used to indicate the temperature of the water samples when they arrive at the laboratory.

Samples should be collected from stations where the water depth is at least three feet. If samples must be collected in less than three feet of water, indicate "shallow water" on laboratory collection form. Always sample water that is flowing toward you, not away from you.

Samples must be collected during a low or ebbing (outgoing) tide which is at least 1.5 hrs. after high tide and no longer than 1.5 hrs. after low tide. Samples collected during

high tides will not be used in data analysis for shellfish growing waters. The level of ice in the cooler should never reach the neck of the sample bottles. Ice melt water should be drained away to prevent possible contamination of sample bottles.

On the shellfish seawater analysis laboratory collection form, indicate the station number, tide and time of collection (military time). Any obvious source of fecal coliforms (i.e. birds, water running out of pipes, suds in water, dredging operations, etc.) that you notice during sampling should be noted on the collection form. Make a copy of the completed collection form for your records. Laboratory collection forms are not interchangeable between laboratories. The laboratory will reject samples if you do not use their collection form.

The mTEC method has four different dilution options, low, high, x-dilution and xx-dilution. The reporting range for number of fecal coliform colonies per unit are as follows:

Low (100ml) = <1 to > 80 CFU High (50ml) = < 2 to > 160 CFU X-Dil (10ml) = < 10 to > 800 CFU XX-Dil (1ml) = < 100 to > 8000 CFU

The laboratory will run samples in the low range unless otherwise noted on the sample collection form. During routine sampling of Approved and Conditionally Approved shellfish growing areas, the low range should be used. The high range will be run if there is not at least 100ml of water in the collection bottle and could also be used for Restricted areas where you would expect the number of fecal coliform bacteria to be less than 160 units per 100ml of water. The X-dil and XXdil should be used where you suspect a fecal pollution source. Only DA/BA laboratory will run XX dilution samples. Samples with a large amount of sediment or suspended solids may cause some problems with the mTEC method and require a high or extra dilution. Laboratory personnel will make a determination at the time of processing.

## **HANDLING AND SUBMISSION OF SAMPLES**

Who may collect and submit samples to DA/BA laboratory:

Only those individuals who have been trained and approved by DA/BA Environmental Analyst staff may collect samples for the shellfish program. Local health department personnel or their designees, local shellfish commission members or wardens may collect water and shellfish samples for the shellfish program.

Samples should be submitted to either the DA/BA Laboratory in Milford or the DPH Environmental Microbiology Laboratory in Rocky Hill. DA/BA will not be responsible for the cost of analysis of samples conducted at private testing laboratories or for analysis of samples collected at locations not designated by DA/BA nor will it accept data from an unapproved laboratory or collected by someone not approved by DA/BA. At the time of the writing of this document, there are no private laboratories certified through the NSSP standardization procedure to process seawater or shellfish samples for the shellfish program.

Water samples must be cooled to a temperature of 50 degrees F (10 degrees C) or lower and held at that temperature until received at the approved laboratory. After the sample is collected, place it immediately into the ice chest with ice and ice packs. Ice packs alone will not adequately lower the water temperature of samples collected in the summer. Mechanical refrigeration is recommended for extended periods of storage. Samples will be analyzed by the laboratory as soon as possible but must be processed within 30 hours. Samples without a temperature control sample, a temperature control sample over 500 F (100 C), or samples over 30 hours old will be not be accepted by the testing laboratory. Water samples that are frozen or with visible ice crystals will also be rejected by the laboratory. Samples without an adequate air gap may be rejected by the laboratory. Samples that have leaked may be rejected by the laboratory.

All sampling must be arranged in advanced with a DA/BA analyst who manages your area by calling or emailing the analyst. You must contact the DA/BA at least 24 hours prior to collection of samples to ensure that media is available and the laboratory is not overloaded with samples. The DA/BA analyst will confirm that the samples are being collected under the appropriate conditions and will let you know if the DA/BA laboratory can process the samples.

If the DA/BA laboratory in Milford is unable to process the samples, DA/BA staff will call the DPH laboratory supervisor to confirm that the DPH laboratory is able to process the samples. DA/BA staff will then communicate with the shellfish commission contact either by phone or email. When a state holiday occurs in the week you anticipate sampling, call the DA/BA to determine when samples may be submitted to the laboratory. Regardless of which laboratory is used, you must inform the DA/BA of your sampling plans 24 hours in advance so that we can confirm that samples will be collected under the correct conditions and arrange for the collection and processing of correlating shell stock samples if necessary.

The DA/BA laboratory in Milford will accept samples Monday-Wednesday from 8:00 a.m. to 4:30 p.m. and Thursday from 8:00am to 1:00 pm. No samples will be accepted after 1:00 pm on Thursday.

The DPH laboratory in Rocky Hill will accept seawater samples Monday-Thursday from 8:00 a.m. to 1:00 p.m. No samples will be accepted after 1:00 p.m. on Thursday.

When dropping samples off to the DPH laboratory, please enter through the main entrance and notify security that you are dropping off samples. You will be directed to the receiving room, where staff will call the Environmental Microbiology laboratory to inform them that the samples have arrived. Please submit both the DPH Sample Submission Form and the DA/BA Seawater Collection Form.

**Contact Information:**

Alissa Dragan

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Cell: (860) 818-7034

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Laboratory contact:

Joseph DeCrescenzo, Microbiologist 2  
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Email: joseph.decrescenzo@ct.gov

Mailing Addresses:  
Connecticut Department of Agriculture Bureau of Aquaculture  
190 Rogers Ave.  
Milford, CT 06460

Dr. Katherine A. Kelley  
Public Health Laboratory  
Connecticut Department of Public Health Environmental Microbiology  
395 West Street  
Rocky Hill, CT 06067

Reference: [ISSC] Interstate Shellfish Sanitation Conference. 2015. National Shellfish Sanitation Program: Guide for the Control of Molluscan Shellfish. US Department of Health and Human Services Public Health Service Food and Drug Administration. 2  
[ISSC] Interstate Shellfish Sanitation Conference. 2015. National Shellfish Sanitation Program: Guide for the Control of Molluscan Shellfish. US Department of Health and Human Services Public Health Service Food and Drug Administration.

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**STATE OF CONNECTICUT  
DEPARTMENT OF AGRICULTURE  
Bureau of Aquaculture and Laboratory**

**PROCEDURE FOR THE COLLECTION OF SHELLSTOCK SAMPLES FOR  
BACTERIOLOGICAL TISSUE EXAMINATION USED IN THE  
CLASSIFICATION OF GROWING AREAS**

**Amended: January 31, 2013**

**INTRODUCTION**

Bacteriological examination of tissues from bivalve molluscan shell stock for fecal coliform bacteria is used in conjunction with seawater examination and sanitary survey information to assess the bacteriological water quality of shellfish growing areas in Connecticut in accordance with the National Shellfish Sanitation Program (NSSP) Model Ordinance<sup>i</sup>. Failure to follow this sampling procedure could result in improper sample identification, inaccurate measurement of the bacteriological burden of shellfish in the growing area, and the exclusion of such results from the database used for growing water classifications and for reopening studies following sewage or rain related closures of growing areas.

All bacteriological analysis of shellfish (clams, mussels, oysters and scallops whole or roe-on) must be performed by a laboratory that is evaluated for compliance with the NSSP. The Connecticut Department of Agriculture/Bureau of Aquaculture (DA/BA) laboratory is the only laboratory in Connecticut that meets this requirement. Shellfish tissue results analyzed by any laboratory that does not meet the NSSP requirements cannot be accepted by the DA/BA.

**EQUIPMENT**

1. Heavy-weight plastic bags (food grade) supplied by the DA/BA laboratory to collect shell stock samples, or other clean, waterproof container.
2. An appropriate implement (clam rake, etc.) shall be used for collection of the species of interest, for shell stock collected from recreational areas.
3. A cooler to hold samples.
4. A water bottle to be used as a temperature control for samples. Any small water bottle may be used for the temperature control.
5. Ice and frozen ice packs in cooler to cool and maintain the temperature of the samples at 50°F (10°C) or less until samples are delivered to the laboratory.

6. Nautical chart or GPS showing location of sampling stations approved by the DA/BA.
7. CT DA/BA Shellfish Meats Collection Form (see attached AQ-Lab-02).
8. Disposable gloves are recommended for collection of samples from areas suspected of being polluted with sewage or close to water pollution control facilities.

### **SAMPLE COLLECTION**

1. **Shell stock samples must be scheduled in advance with an analyst in charge of the area.** The shell stock bacteriological examination may take up to 48 hours, and must be appropriately scheduled when the laboratory can accept the sample.
2. The shell stock monitoring station identification number must be written on the bag using a waterproof, permanent marker. The monitoring station number will consist of the Town's state tax number, followed by the DA/BA assigned station number or name of lot or growing area.
3. A representative sample of shell stock from the assigned station is collected. 15 individuals *of the same species* are taken in order to obtain a representative sample. With most species, this allows for 200 g of combined liquor and meats. At least 200 g of shellfish tissue are used for analysis. Select the shell stock to be examined and place in the bag. Shell stock should be free of excess mud and silt. Clean in original harvest area if necessary. Close top of bag. If individuals are smaller, more animals are needed to meet the necessary weight requirements for examination.
4. Place sample in cooler. The sample must be kept above freezing and below 50°F (10°C) until examined. The shell stock must **not** come into direct contact with ice or melted ice water, please use sealed plastic bag and keep sample upright.
5. A temperature control should be collected at the same time, or prior to, meat collection. Any small water bottle may be used for the temperature control. The temperature of the water will be taken when the sample arrives in the laboratory. Any samples that are collected without a temperature control will not be accepted. If temperature control is above 50°F (10°C) when the sample arrives in the lab, the sample will not be examined.
6. Complete a Shellfish Meats Collection Form (AQ-Lab-02). The following information is needed:
  - a. Town, date collected, time collected, collector
  - b. Sample location (station number assigned by DA/BA or name of lot/growing area)
  - c. Sample Type (species)
  - d. Date harvested, harvester (for samples collected by a harvest vessel)
  - e. Shellfish relayed from (original harvest area) and date relayed (if applicable)
  - f. Latitude/Longitude coordinates should be recorded under comments if available.

7. Samples of shell stock should be examined within 6 hours after collection, and in no case more than 24 hours after collection.

**Who may collect and submit samples to DA/BA laboratory:**

Only those individuals who have been trained and approved by DA/BA Environmental Analyst staff may collect samples for the shellfish program. Local health department personnel or their designees, local shellfish commission members or wardens may collect water and shellfish samples for the shellfish program.

**SCHEDULING OF SAMPLES**

1. The shell stock samples must be scheduled in advance with an analyst in charge of the area. The shell stock bacteriological examination may take up to 48 hours and the number of samples that can be processed is limited.
2. The laboratory can only accept shell stock samples Monday, Tuesday, or Wednesday. Samples must be submitted ***no later than*** 1 pm on Wednesday.
3. In case of an emergency situation, it may be possible to make other arrangements with the approval of the laboratory director.

**Contact Information:**

Western Region Analysts (Greenwich to East Haven)

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**Laboratory Address:**

## Connecticut Department of Agriculture Bureau of Aquaculture

190 Rogers Ave., Milford, CT 06460

References [ISSC] Interstate Shellfish Sanitation Conference. 2005. National Shellfish Sanitation Program: Guide for the Control of Molluscan Shellfish. US Department of Health and Human Services Public Health Service Food and Drug Administration.

Greenberg, A., Classer, L.S., and Eaton, A.D., editors. 1992. Standard methods for the Examination of Water and Wastewater, 18<sup>th</sup> edition. APHA, Washington, D.C.

Recommended Procedures for the Examination of Sea Water and Shellfish, 4<sup>th</sup> Edition. 1970. APHA, New York, NY.

### Bureau of Aquaculture, Department of Agriculture, State of Connecticut

#### Phytoplankton and Biotoxin Monitoring Programs



#### Phytoplankton Volunteer Network Standard Operating Procedure (SOP)

**Overview.** In addition to completing all of the required testing for shellfish sanitation, the Department of Agriculture/Bureau of Aquaculture (DA/BA) monitors phytoplankton along Connecticut's 250-mile shoreline. Phytoplankton monitoring is a critical component of our program because it provides staff with an early warning about the presence and abundance of harmful algal bloom (HAB) species, which have the potential to impact or even close shellfish growing areas. Some HAB species produce toxins, which can accumulate in shellfish tissues, and make consumers sick or result in death when present in high enough concentrations. While Connecticut historically has only had a few HAB closures, isolated to Groton, HABs are increasing in frequency and intensity in other regions of the U.S., including neighboring New York and Rhode Island waters, and some HAB species are expanding their distributions. With such a large coastline and robust shellfish program, DA/BA staff would like to increase the number of phytoplankton samples analyzed annually. Your contribution to our program is greatly appreciated and will help ensure the safety of your town's shellfish products and Connecticut's high-standing reputation.

#### Procedure: Whole-water grab samples (applicable for sampling areas equal to or less than 6.5ft depth)

##### Equipment:

- 500mL sample bottles
- Water grab stick
- Lugol's iodine (fixative, contains acid – handle with caution!)
- Sampling sheets
- 100mL sample bottles

##### Procedure:

- Every town should have a set station(s) to collect phytoplankton samples at. Record the water monitoring station number on the side of one (1) 500mL bottle. Phytoplankton bottles do not need to be sterile, but it is critical that the bottles are not cracked or damaged in any way that will compromise the sample integrity.
- Wade into the water if collecting from shore, or ensure you are at a depth equal to or less than 6.5ft if sampling by boat. When sampling from shore, allow any debris disturbed by wading in to settle. When sampling from a boat with an automatic bilge pump, collect sample as far away from the bilge pump discharge as possible and avoid boat wash.
- Place the sample bottle in the sampling tool clamp with the bottle opening facing up. Remove the cap. Place the 500mL bottle approximately 1ft below the surface and allow the bottle to fill while you bring it back to the surface – you want to collect a composite water sample from 1ft subsurface to the surface. Fill the bottle up to the top, but leave a slight amount of air space to mix the sample. Please avoid aerating the sample (i.e. do not allow the water to “bubble” into the container).
- Add ~30 drops of Lugol’s iodine to fix the 500mL sample. The fixed sample should be tea-colored. It is better to underfix a sample (e.g. add 25 drops if you are concerned about overfixing the sample).
- Place the cap back on, seal the bottle completely and **gently** invert the bottle to thoroughly mix the fixative into the sample. **DO NOT** shake the sample vigorously – some phytoplankton are fragile and cells will be stressed or lost if not handled appropriately.
- The 500mL fixed sample will be used for quantitative analysis of the phytoplankton community. A live sample is also useful for identification purposes – you can do a quick 100mL grab sample, but do not fix it. You do not need to use sterile 100mL bottles for phytoplankton collection.
- Both the live and fixed samples need to be kept cool – they can be stored in a cooler with other water samples for the lab. Please avoid light exposure as much as possible.
- If you are collecting the phytoplankton sample on a routine water sample run, simply record “phyto” and the collection time on your sheet. The laboratory will complete the phytoplankton monitoring collection form upon arrival.
- If possible, please provide environmental information like water temperature and salinity, as they are very useful for phytoplankton monitoring.

Whole-water grab samples should be collected if you notice discolored water, potentially indicative of a bloom. While the bloom may not be toxic, avoid direct contact with the discolored water and thoroughly wash your equipment (e.g. sampling stick, waders if applicable, etc.) with bleach and freshwater at the completion of sampling. **DO NOT** use sampling equipment that may have come in contact with a bloom at a later location, as it is best to avoid spreading a potentially toxic species.

**In the event of a bloom or if you have questions, please contact the following DA/BA staff:**

*During normal business hours (Monday-Friday, 8-5): (203)-874-0696*

Emily Van Gulick, Fisheries Biologist I, phytoplankton monitoring, [emily.vangulick@ct.gov](mailto:emily.vangulick@ct.gov)

Shannon Kelly, Environmental Analyst II, phytoplankton monitoring, shannon.kelly@ct.gov

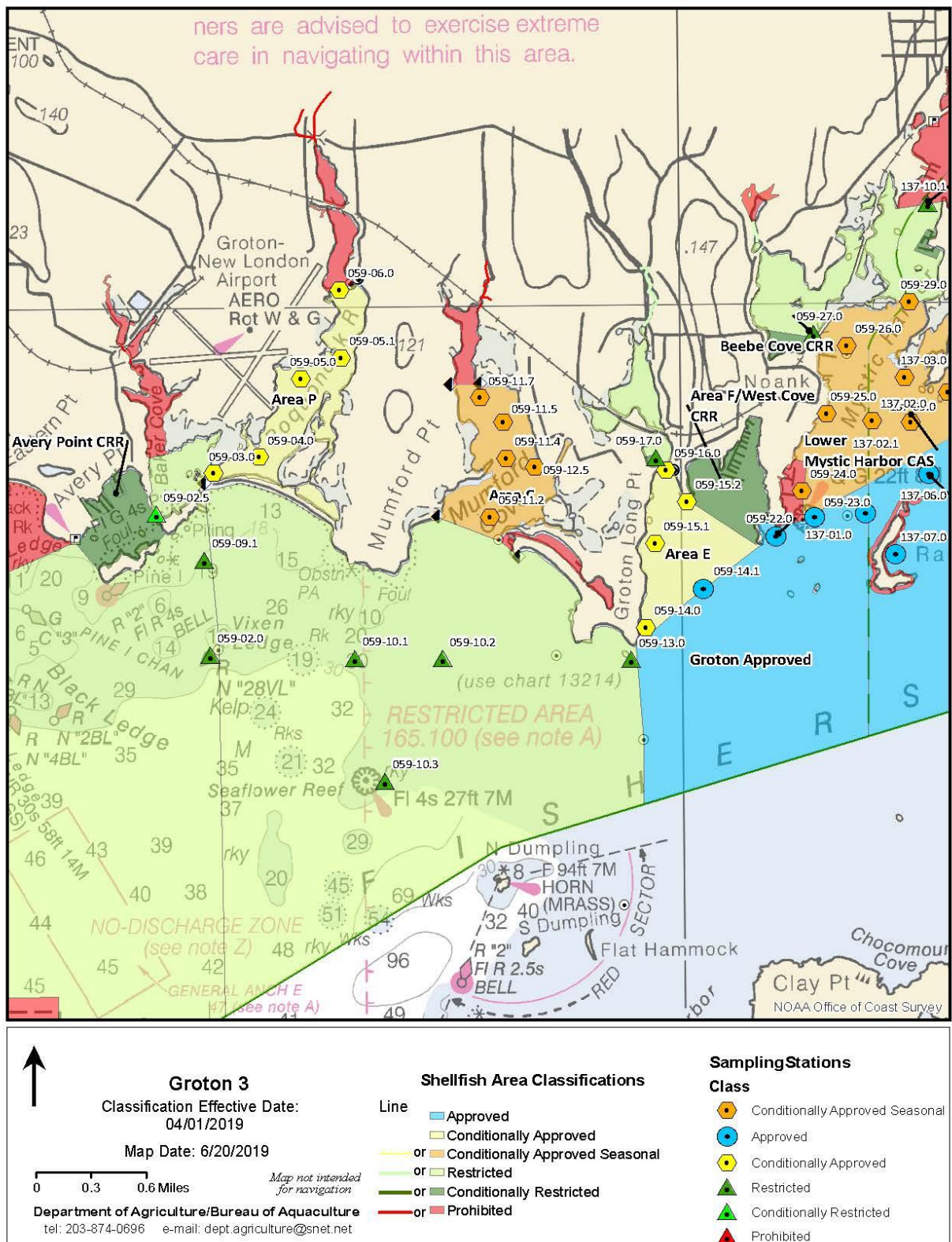
Alissa Dragan, Environmental Analyst II, growing area specialist, alissa.dragan@ct.gov

*Outside of normal business hours/weekends and holidays:*

Kristin DeRosia-Banick, Environmental Analyst III, (203)-209-4023

Alissa Dragan, Environmental Analyst II, (860)-818-7034

# Groton Water Sampling Locations and Chain-of-Custody Forms



CA Area Sampled NAME	Area Status OPEN/CLOSED (O/C)
APC Sample Run? <input type="checkbox"/>	

Date/Time Samples Incubated at 35° C/Initials: \_\_\_\_\_ Time Samples Incubated at 44.5° C/Initials: \_\_\_\_\_

[illegible]

\*Dilution Range: L (100 ml) = <1 - >80 CFU      \*\*CFU = Colony Forming Units  
H (50 ml) = <2 - >160 CFU      Results for fecal coliforms are obtained by using the m-TEC method.  
X (10 ml) = <10 - >800 CFU      XX (1 ml) = <100 - >8000 CFU



**CONNECTICUT DEPARTMENT OF AGRICULTURE**  
**BUREAU OF AQUACULTURE, P.O. BOX 97, 190 ROGERS AVE., MILFORD, CT 06460**  
**SHELLFISH MEATS COLLECTION FORM**

Town: \_\_\_\_\_

Tax Code: \_\_\_\_\_ Collector: \_\_\_\_\_

Date Collected: \_\_\_\_\_ Time Collected: \_\_\_\_\_ Date Harvested: \_\_\_\_\_

Sample Location: \_\_\_\_\_ Depth at Location: \_\_\_\_\_  
Harvester: \_\_\_\_\_

Sea Water Surface Temperature at Collection: \_\_\_\_\_ Sea Water Bottom Temperature at Collection: \_\_\_\_\_

Sea Water Salinity Surface at Collection: \_\_\_\_\_ Sea Water Salinity Bottom at Collection: \_\_\_\_\_

Shellfish Relayed from: \_\_\_\_\_ on: \_\_\_\_\_

Sample Type (circle one):    Hard Clam    Oyster    Blue Mussel    other: \_\_\_\_\_

Shell stock (circle one):    in shell    shucked    Collector's Sample  
No.: \_\_\_\_\_

Analysis Requested (circle one):    Bacteriology    Heavy Metals    Pesticides    PCB's  
Other \_\_\_\_\_

Purpose of Analysis: \_\_\_\_\_ Reopen area \_\_\_\_\_ Post relay \_\_\_\_\_ Other

Comments:

(SAMPLES MUST BE AT LEAST 12 ANIMALS AND WEIGH AT LEAST 200 GRAMS. COLLECT SAMPLE IN A CLEAN WATERPROOF CONTAINER. ALL SAMPLES MUST BE ICED IMMEDIATELY AFTER COLLECTION. SUBMIT A WATER FILLED WATER COLLECTION BOTTLE AS A TEMPERATURE CONTROL.)

Date/Time Sample Arrival in Lab/Initials: \_\_\_\_\_ TC/Initials:

\_\_\_\_\_

Time sample placed into refrigerator/Initials: \_\_\_\_\_

DIL	0	0	0	0	0	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3
LST																				
EC																				

Date/Time LST Inoculated/Initials: \_\_\_\_\_ Date/Time EC Inoculated/Initials:

\_\_\_\_\_

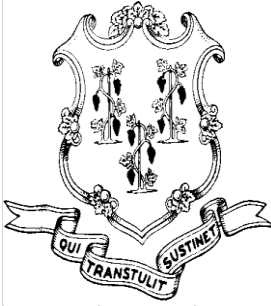
Date/Time of EC Results/Initials: \_\_\_\_\_ MPN Value/Date/Initials:

\_\_\_\_\_

**FECAL COLIFORM RESULT:** \_\_\_\_\_ **MPN/100 grams of sample.** Date/Initials: \_\_\_\_\_

MPN Check-Date/Initials: \_\_\_\_\_

(Front page of form for fecal coliform testing only -over for testing of total coliform, fecal coliform and SPC )



# Connecticut Department of Agriculture Bureau of Aquaculture Sample Chain of Custody



Town:

Sample Date:

Time of First Sample Collected

Sample Collector:

Noank Sample Delivery Date:

Sample Delivery Time:

Received By:

Time To Truck:

Received By:

DA/BA Sample Delivery Date:

Sample Delivery Time:

Received By:

## **ATTACHMENT XVI**

### **GROTON SHELLFISH COMMISSION (GSC):**

#### **COMMERCIAL AQUACULTURE AUTHORIZATION APPLICATION & REGULATORY PROCESS INFORMATION\***

##### **Table of Contents**

PHASE 1	PREAPPLICATION .....	60
1.1	Who May Apply .....	61
1.2	How to Apply .....	61
1.3	GSC Actions .....	62
PHASE 2	FORMAL APPLICATION .....	64
2.1	TRACK 1. Aquaculture Structures. Operations using aquaculture structures (containers/cages/structures) in any part of the proposed aquaculture application shall complete Track 1 and Track 2.....	64
2.2	TRACK 2. All applicants must complete this track. (Applicants using aquaculture structures must complete Track 1 first.) .....	65
PHASE 3	POST APPLICATION .....	67
3.1	Authorization Decision .....	67
3.2	Fees .....	67
3.3	Administrative Requirements .....	68
3.4	Reporting Requirements.....	68
3.5	Operational Requirements .....	69
3.6	Authorization Renewal .....	70
3.7	Termination.....	70
Appendix 1.	Guidance on Completing Aquaculture Application .....	72
1.	CHECKLIST.....	72
2.	AUTHORIZATION EVALUATION CRITERIA.....	73
3.	AUTHORIZATION RENEWAL CRITERIA .....	74

**\* The Groton Shellfish Commission wishes to express its thanks to the Stonington Shellfish Commission for the use of this template.**

# **PHASE 1      PREAPPLICATION**

This section outlines the requirements that an applicant shall follow to complete an application to the Groton Shellfish Commission (GSC) to conduct aquaculture. Preparation of the application is the first phase in the GSC's aquaculture licensing process. An authorization agreement entered into by the GSC and the applicant is the mechanism by which the Town of Groton (Town) allows temporary use of Town-owned submerged land. All submerged Town land licensed by the GSC for any aquaculture operations is the property of the Town in perpetuity.

## **1.1 Who May Apply**

Any person or legally incorporated shellfish/aquaculture business may apply.

## **1.2 How to Apply**

1.2.1      The applicant shall review the GSC aquaculture authorization process (Figure 1), and fill out the authorization application for aquaculture authorization contained below.

1.2.2      The applicant shall identify the proposed authorization area and determine its availability.

1.2.2.1      The proposed authorization area shall not exceed twenty (20) acres. The time frame of the proposed activity shall not exceed 10 years.

1.2.2.2      The proposed authorization area shall be clearly outlined on a National Oceanic and Atmospheric Administration (NOAA) Oceanographic/Navigation chart showing the location and extent of the proposed aquaculture operation. The proposed authorization area shall be defined by a series of latitude/longitude coordinates to define corners and other appropriate boundary markers, and be shown on a map of suitable scale. The latitude/longitude coordinates shall also be provided in tabular format, defining the proposed authorization area to be used for aquaculture.

1.2.2.3      If the site desired is in a restricted relay designated area, there must be another site selected for depuration. Both sites must be acceptable and both are part of the application.

1.2.2.4      The applicant shall bring map of the proposed

authorization area(s) to the Town Clerk's office at the Groton Town Hall for referencing to the Groton Commercial Shellfish Grounds map. The Town Clerk shall determine the availability of the proposed authorization area(s) shown on the map.

1.2.2.5 The applicant shall obtain a Certificate of Availability of Site Location from the Town Clerk.

1.2.2.6 Costs associated with the aquaculture application process such as, but not limited to, notices of public hearing, decision notice, filing fees associated with registering an approved aquaculture site on the town shellfish grounds map, legal recording fees, etc., shall be the sole responsibility of the applicant.

1.2.2.7 The applicant shall prepare an application to conduct aquaculture in accordance with the Aquaculture Authorization Application contained below.

1.2.2.8 When the aquaculture application is complete, the applicant shall submit the application to the GSC for initial review. The applicant shall submit the application and attachments in both electronic and hard copy.

### **1.3 GSC Actions**

1.3.1 The GSC shall accept the application for initial review and shall determine whether all information required on the application is provided. Acceptance of an application for review and consideration does not signify acceptance for implementation. The GSC will have up to 60 days to review the application for completeness and will hold the bottom for that period. If complete, the bottom will be held for an additional twelve (12) months.

1.3.1.1 If the GSC determines the application is incomplete, it will be returned to the applicant. The applicant may resubmit the application when complete.

1.3.1.2 If the GSC determines the application is complete it shall direct the applicant to begin the formal review and shall guide the applicant to the track or tracks to follow.

1.3.2 Upon submission of a complete application, the GSC shall reserve the bottom designated in this application for

twelve (12) months while the applicant secures all required permits and licenses.

#### 1.3.3 Identification of Formal Application Track

There are two tracks in the application process. Applicants proposing aquaculture structures (containers / cages / structures) shall follow Track 1 and Track 2 to complete the application process. Applicants proposing on-bottom culture only (no aquaculture structures) will follow Track 2. A public hearing is held during Track #2. The GSC shall direct the applicant to the appropriate track or tracks depending on the type of aquaculture presented by the applicant.

## **PHASE 2      FORMAL APPLICATION**

### **2.1    TRACK 1. Aquaculture Structures. Operations using aquaculture structures (containers/cages/structures) in any part of the proposed aquaculture application shall complete Track 1 and Track 2.**

2.1.1      If the GSC determines the application is to follow Track 1, the GSC shall forward the application to Connecticut Department of Agriculture, Bureau of Aquaculture (DA/BA).

2.1.2      The GSC shall consider an application as “pending” for a period up to twelve (12) months while the applicant acquires all State of Connecticut (State) and federal permits and licenses.

2.1.3      The applicant shall be responsible for acquiring all State and federal permits and licenses required to use aquaculture structures. The application process for all State and federal permits and licenses begins with DA/BA.

2.1.4      The applicant shall be the permitted/authorization designee party to all town, State and/or federal permits and licenses applicable to the aquaculture operations being proposed in Town waters.

2.1.5      The GSC shall not execute an authorization agreement until the applicant has received all State and federal permits and licenses and copies of all permits and licenses are on file with the GSC.

2.1.6      Status of state and federal permits and licenses

2.1.6.1      Permits and licenses acquired. Following acquisition of all State and federal permits and licenses and approval by State and federal agencies, the complete application including all necessary (State and federal permits and licenses) shall be submitted to the GSC for acceptance.

2.1.6.2      Permits and licenses acquired with modifications. If State and federal agencies approve the application with modifications, the applicant shall modify their GSC application accordingly and submit those modifications to the GSC for consideration. The modifications will be included in the submitted application.



2.1.6.3 Permits and licenses not acquired. If the applicant cannot acquire all State and federal permits and licenses within the designated twelve (12) month time frame the application shall be denied without prejudice.

2.1.6.4 Permit and/or license denied. If any State or federal permit or license is not approved, the site shall no longer be reserved for the applicant and the application shall be denied by the GSC.

**2.2 TRACK 2. All applicants must complete this track. (Applicants using aquaculture structures must complete Track 1 first.)**

2.2.1 The GSC shall accept the completed application and assign a unique identification number. Once assigned a number, an application shall not be changed or amended by the applicant unless specifically requested by the GSC.

2.2.2 The GSC shall approve or deny the application within one hundred forty (140) days.

2.2.3 During the one hundred forty (140) day period, the GSC shall schedule a public hearing. Notice of the time and place of the public hearing shall be published in accordance with Section 26-240 of the Connecticut State Statutes. When the public hearing is scheduled, the written public comment period begins.

2.2.4 Costs associated with the public hearing such as, but not limited to, posting public notices in local newspapers, shall be the sole responsibility of the applicant. The estimated cost for the posting of the public notice in local newspapers shall be paid to the GSC/Town prior to advertising the public hearing. The public hearing required during the aquaculture application process shall not be conducted until the applicant has paid this fee.

2.2.5 The GSC shall conduct a public hearing on the aquaculture application. At the end of the public hearing, the public comment period ends.

2.2.6 Following the public hearing the GSC shall vote to approve or deny the application.

2.2.7 If the application is approved, the applicant and the GSC shall proceed to PHASE 3, a period of not more than

ninety (90) days, during which the GSC shall negotiate with the applicant and vote to issue or deny an authorization. No work on the site shall start until the authorization is issued.

2.2.8 If the application is denied after the public hearing, the GSC shall not accept another application from the applicant within six (6) months to conduct aquaculture on the same site. This bottom shall not be reserved for the applicant until another application is submitted.

## **PHASE 3 POST APPLICATION**

After the application is approved, the GSC and the applicant shall negotiate the terms of the authorization.

### **3.1 Authorization Decision**

3.1.1 If agreement is reached on Authorization terms, the GSC shall issue an aquaculture authorization in accordance with the agreement. Notice of the decision shall be published within 15 days of the issuance of the authorization.

3.1.2 If an application is denied because compensation cannot be agreed on, the GSC shall not accept another application from the applicant to conduct aquaculture on the same site within six (6) months. The proposed authorization area shall not be reserved for the applicant until another application is submitted.

3.1.3 Any appeal from a denial of an authorization must be in accordance with Section 4-183 of the Connecticut State Statutes, except the venue for such appeal shall be in the Superior Court of New London at New London.

### **3.2 Fees**

3.2.1 Harvest Permit Fee. The license holder shall hold a valid GSC Commercial Shellfishing Harvest authorization throughout the term of operations. The authorization fee must be renewed annually. The fee for this authorization is determined on an annual basis by the GSC. Payment to the GSC shall be in shellfish product, cash, or other form, or combination of forms deemed appropriate by the GSC.

3.2.2 Annual Authorization Fee. The authorization holder shall be assessed a fee by the GSC for the use of Town of Groton submerged bottom/water column for aquaculture. This annual fee is set as part of the authorization terms. Payment to the GSC shall be in shellfish product, cash, or other form, or combination of forms deemed appropriate by the GSC.

3.2.3 Any fees paid to the GSC as part of the authorization agreement shall be non-refundable and non-returnable.

3.2.4 Failure to pay all fees by the end of the calendar year shall result in a 1.5% per month or 18% annual penalty of the amount owed or revocation of the authorization.

3.2.5 Any fees owed to the GSC by the authorization holder shall be paid in full by the time of termination of the authorization.

### **3.3 Administrative Requirements**

3.3.1 During the entire term of the agreement, the applicant shall keep current and valid all applicable federal, State and/or Town permits, licenses, registrations and other documentation required to legally carry out the conditions of the GSC authorization agreement. The applicant shall provide updated copies to the GSC as appropriate according to permit and license renewal dates.

3.3.2 The Town shall not be held responsible for any obligations, financial or otherwise, accrued by the applicant as a result of the authorized aquaculture operation, nor shall it be held responsible for the value of any gear, shellfish product or other items associated with the aquaculture operation.

3.3.3 The Applicant covenants and agrees with the Town that it will indemnify and save harmless, the Town against any and all claims, injury, loss, damage, expense, deaths, demands, liability or obligations which may be made against the Town arising by reason of or in connection with the use of the Town's property, including:

- (a) any such claim or suit attributable to the negligence of the Town, its officers, employees, agents, and representatives;
- (b) any such claims or suits attributable to the alleged acts or omissions of the Applicant or any person claiming under, by, or through the Applicant and, if it becomes necessary for the Town to defend any action seeking to impose any such liability, the Applicant will pay the Town all costs of court and attorneys' fees incurred by the Town in effecting such defense, in addition to any other sums which the Town may be called upon to pay by reason of any litigation in which any claim is asserted.

### **3.4 Reporting Requirements**

The authorization holder shall submit a written annual summary report of their activities to the GSC in December of each calendar year. The report shall outline the work done on

the authorized grounds, amount of product harvested and the amount of product currently on site. In addition, the report shall include an update on any changes to the distribution (e.g., presence, expansion, contraction) of eelgrass within the site.

### **3.5 Operational Requirements**

3.5.1 The GSC, or its designated agent, shall have full right to enter and assess operations, conditions and activities on the authorized aquaculture site.

3.5.2 The designated Shellfish Warden, or any active member of the GSC, shall be allowed to board a commercial operator's vessel, while the vessel is working in Town waters, to inspect permits and licenses, harvested product, equipment and/or perform other duties and checks deemed appropriate.

3.5.3 The authorization holder shall actively use the area defined in the authorization agreement on a consistent and continuing basis as defined in the authorization agreement. The GSC shall not allow the use of authorization agreements as mechanisms by which to "hold" bottom for some possible future use by a commercial entity. The area defined in the authorization agreement for aquaculture purposes shall be actively worked and/or used, as specifically described in the authorization agreement.

3.5.4 Only the species listed on the authorization agreement shall be cultivated in the authorization area. The introduction of non-native species into Town waters is prohibited.

3.5.5 All gear used in aquaculture operations shall be maintained in accordance with local, State and federal permits and licenses.

3.5.6 In the event that gear is moved from the aquaculture site due to a storm or other meteorological conditions, the authorization holder shall notify the GSC and shall make all efforts to remove that gear from the shoreline or other place of its deposit as soon as possible.

3.5.7 No aquaculture activities shall be conducted on the site between sunset and sunrise, or on holidays or weekends between Memorial Day and Labor Day.

3.5.8 Engine or equipment noises shall not exceed state- or Town-mandated decibel levels.

### **3.6 Authorization Renewal**

3.6.1 Two months before the authorization expiration date the authorized party shall notify the GSC of his/her desire to renew the authorization. The GSC Chairman shall post an agenda item for the following GSC meeting to discuss the renewal request.

3.6.2 To be eligible for authorization renewal the authorization area, species cultivated, grow-out methods, and harvest methods must be identical to the original authorization agreement. If there are any changes, a new application to conduct aquaculture must be submitted.

3.6.3 The proposed renewal period shall not exceed 10 years.

### **3.7 Termination**

The authorization agreement may be terminated for any of the following reasons:

3.7.1 The authorization holder may terminate their authorization agreement at any time by submitting written notification to the GSC.

3.7.2 Failure to submit reports on activities in accordance with Section 3.4 may result in termination of the authorization agreement.

3.7.3 Use of the aquaculture site for activities or purposes not on the authorization agreement, or by parties other than those expressly stated in the authorization agreement, shall be grounds for termination.

3.7.4 Failure to show continuing activity at the site in accordance with Section 3.5.3 shall result in termination of the agreement.

3.7.5 The GSC may terminate the authorization agreement if the authorization holder violates any provision of the authorization agreement. Any appeal from a termination of a authorization must be in accordance with Section 4-183 of the Connecticut State Statutes, except the venue for such appeal shall be in the Superior Court of New London at New London.

3.7.6 In the event an authorization agreement is terminated, the authorization holder shall be given time to remove all gear and product from the site, not to exceed a six (6) month period from the date of termination.

# **Aquaculture Authorization Application: Guidance on Completing the Aquaculture Application**

This section provides guidance from the GSC on how to complete the attached application to conduct aquaculture.

## **1. CHECKLIST**

The following are specific details to note while completing an application. Failure to provide all requested information and/or adhere to all requirements will result in the return of the application.

- a) Provide a Certificate of Availability from the Town Clerk for the proposed site.
- b) Provide a list of the latitude & longitude coordinates that define the boundaries of the aquaculture area.
- c) Provide the exact acreage of the proposed aquaculture site (not to exceed 20 acres).
- d) Time frame of the proposed activity shall not exceed 10 years.
- e) Provide a list of the species to be grown and the number expected to be growing at full production.
- f) Provide a description of the site, focusing on bottom condition of the area to be used, and particularly noting the existence of eelgrass and shellfish populations or other significant natural resources, as well as docks or other pertinent man-made structures or features. The bottom survey must be conducted in accordance with the guidelines outlined by the Army Corp of Engineers (most recent version of the Joint Federal Agency's Submerged Aquatic Vegetation Survey for the New England Division). Areas containing significant resources, particularly eelgrass, may be considered unsuitable for aquaculture operations by the SSC. While presence of these resources does not by default mean an area may not be used for aquaculture, their presence may limit use of part of the site. In some cases, aquaculture may not be allowable. The location of eelgrass must be clearly shown on the map accompanying the application. If no eelgrass is present, the applicant must state this as being the case. A brief description of eelgrass survey methodology used is to be provided by the applicant as part of the application. Applications not having complete eelgrass documentation will be returned to the applicant.
- g) Provide a description of the specific type(s) of gear to be used;
- h) Provide a description of the specific methodologies and timing of growing and harvesting;
- i) Provide the complete names and addresses of all land owners for any property located five hundred (500) feet or less from the boundaries of the proposed license area. Also include the names and addresses of any claimants of water rights or shellfish license areas or leases adjacent to the proposed license area. Provide certification that a notice of application was sent to all identified parties.
- j) Describe any known or anticipated conflict with other users as a result of the proposed aquaculture operation, for example commercial or recreational fishing, swimming, sailing, kayaking, and other commercial and recreational water uses.



- k) Provide the Registration ID and a photograph of all vessels to be used.
- l) Submit the signed application form indicating that the applicant has read and understood the guidance and requirements for a Town of Groton aquaculture authorization.

## **2. LICENSE EVALUATION CRITERIA**

This section provides information that the Groton Shellfish Commission (GSC) may use to evaluate the impact of a proposed shellfish license. The GSC may determine some areas are not applicable and has the option not review all parameters listed below. In some cases, authorizations going before the Army Corps of Engineers for approval or a similar approval process may have examined these parameters in more detail than the GSC would. The GSC may accept the recommendations provided by these activities.

### **A. Recreation**

How does the proposed project affect the following recreational activities?

- a) Fishing
- b) Swimming and similar activities.
- c) Kayaking, sailing or similar non-powered watercraft
- d) Shell fishing
- e) Crabbing
- f) Hiking
- g) Other passive uses

### **B. Boating**

How does the the proposed project affect the following?

- a) Passage of motorized watercraft in boating channels
- b) Passage of motorized watercraft through the aquaculture site
- c) Will containers, cages, buoys or other structures hinder boat use
- d) Will the location chosen restrict boat use of the area

### **C. Commercial Activities**

How does the proposed project affect the following?

- a) Commercial fishing (e.g. for finfish, lobsters, conch)

### **D. Quality of Life**

How does the proposed project affect the following?

- a) Immediate neighbors (e.g., noise, traffic, visual impact)
- b) Use of the area by the public

**E. Environmental Impacts**

How does the proposed project affect the following?

- a) Eelgrass
- b) Water quality
- c) Shellfish
- d) Potential impact on the bottom
- e) Other natural resources

**3. LICENSE RENEWAL CRITERIA**

The following factors will be considered during the evaluation of a request to renew an authorization to conduct aquaculture in Groton waters.

- a) Is the authorization renewal identical to the original authorization (location, acreage, species, grow-out methods, harvest methods, etc.)?
- b) Did the authorization holder abide by all the terms of the authorization agreement?
- c) Did the authorization holder submit timely annual reports that were comprehensive and reflected the accomplished goals of the previous authorization?
- d) Did the authorization holder pay all fees fully and on time?
- e) Were there any public or commission complaints voiced over the duration of the prior authorization?

## APPLICATION TO CONDUCT AQUACULTURE

Date of Application: \_\_\_\_\_ Total Acreage Requested: \_\_\_\_\_  
Proposed Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

Specie(s): ☐ Oyster (*Crassostrea virginica*) Max # to be produced: \_\_\_\_\_  
☐ Quahog (*Mercenaria mercenaria*) Max # to be produced: \_\_\_\_\_  
☐ Scallop (*Argopecten irradians*) Max # to be produced: \_\_\_\_\_  
☐ Other: \_\_\_\_\_ Max # to be produced: \_\_\_\_\_

Source of Species: Company Name \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone # \_\_\_\_\_

Primary Gear Type(s): ☐ Bottom ☐ Suspended ☐ None  
☐ Net ☐ Cage ☐ Other: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Firm/Company Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: (day) \_\_\_\_\_ (evening) \_\_\_\_\_

email \_\_\_\_\_

DA/BA Permit No(s) \_\_\_\_\_ Expiration Date: \_\_\_\_\_

CTDEEP Permit No(s) \_\_\_\_\_ Expiration Date: \_\_\_\_\_

USACE Permit No(s) \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Provide a photo of the vessel to be used.

Vessel Registration: \_\_\_\_\_ Name: \_\_\_\_\_

Make & Model: \_\_\_\_\_ Length & Color: \_\_\_\_\_

**I have read and understand, the "Overview of the Application Process to Conduct Aquaculture in Groton, CT", "Stipulations for Approved Aquaculture Operations in the Town of Groton Waters", and "Groton Shellfish Management Plan" documents, and agree to adhere to the terms and conditions as defined. A validated Certificate of Availability is attached (See form below).**

Signed \_\_\_\_\_ Date \_\_\_\_\_

THIS APPLICATION MUST BE SUBMITTED IN BOTH ELECTRONIC & HARD COPY (7 copies)

**TOWN OF GROTON**  
**Office of the Town Clerk**

**Certification of Shellfish Grounds**

Pursuant to Connecticut General Statute 26-242, I hereby certify that I have examined all records and maps in my custody pertaining to shellfish leases and grants, and based on such examination, can further certify that the following ground has not been previously designated and that such ground is within the limits allotted by law for designation by the Groton Shellfish Commission (GSC).

Applicant Name: \_\_\_\_\_

Firm/Company Name: \_\_\_\_\_

Description of the Plot (Include geographic coordinates, which must be the same as those in 2a of this form):

\_\_\_\_\_  
Date

\_\_\_\_\_  
Groton Town Clerk

**1. Objective/Outcomes**

a) What are your business and operational objectives? Please provide a business plan if you have one.

b) Show the year-by-year increase of the number of acres and number and type of shellfish under cultivation as your operations grow from startup to maximum production.

YEAR	# OF ACRES	NUMBER AND TYPE OF SHELLFISH
1		
2		
3		
4		
5		

## 2. Culture/Grow-out Grounds

- a) Provide a list of the latitude & longitude coordinates that define the boundaries of the aquaculture area.
  
  
  
  
  
  
  
  
  
  
- b) Provide a NOAA navigational chart showing the location and extent of the proposed aquaculture operation. The chart may be plotted using the Aquaculture Mapping Atlas (<https://clear3.uconn.edu/aquaculture/>) with the NOAA Navigational chart base map. Additional maps showing satellite images may be provided to show further details of the area of the proposed activity.
  
  
  
  
  
  
  
  
  
  
- c) Describe the in-water resources such as natural shellfish populations, and other marine species present. Eelgrass bed locations and extents **must** be shown on the map; if no eelgrass is present, please state this to be the case. Note: The applicant may be required to conduct a formal eelgrass survey using the method described in “Joint Federal Agency Submerged Aquatic Vegetation Survey Guidance for the New England Region (Updated August 11, 2016).
  
  
  
  
  
  
  
  
  
  
- d) Describe the water-based activity in the vicinity of the proposed aquaculture operation. Water-based activity includes, but is not limited to, swimming, kayaking, recreational and commercial boating fairways, nearby docks, recreational and commercial fishing grounds, etc.
  
  
  
  
  
  
  
  
  
  
- e) Provide the complete names and addresses of all land owners for any property located five hundred (500) feet or less from the boundaries of the proposed license area. Also include the names and addresses of any claimants of water rights or shellfish license areas or leases adjacent to the proposed license area. Provide certification that a notice of application was sent to all identified parties.

### **3. Grow-out & Harvesting Methods**

a) Describe the specific methods and activities that will be used to carry out the operations on the aquaculture site.

b) Describe in detail all the equipment to be used on the site. Attach any brochures/literature that describes the gear.

c) On a map of the site, show the gear layout and any changes that will occur over time.

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For Groton Shellfish Commission use only:

Copies of this application have been forwarded to:

☐ Harbormaster; ☐ Appropriate Harbor Management Commission; ☐ Selectmen's Office;

☐ Planning Department

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